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STUDIES IN ADULT EDUCATION

EDUCATIONAL OPPORTUNITIES
FOR YOUNG WORKERS

STUDIES IN ADULT EDUCATION

THESE five studies were undertaken in connection with the general efforts which the Carnegie Corporation is making toward improved education in the United States. The first four were made by investigators under the auspices of the Corporation, the fifth by a Commission of the American Library Association.

EDUCATIONAL OPPORTUNITIES FOR YOUNG WORKERS. *By Owen D. Evans.*

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THE MACMILLAN COMPANY

EDUCATIONAL OPPORTUNITIES FOR YOUNG WORKERS

BY

OWEN D. EVANS, A.M.

SUPERINTENDENT OF THE MECHANICAL SCHOOL

GIRARD COLLEGE, PHILADELPHIA

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INTRODUCTION

THIS study is the first unit of the Adult Education Study which is being conducted by the Carnegie Corporation of New York. There has been much discussion in recent years of education as continuing process. As a nation we are committed to a policy of universal education whether in free public schools or in generously endowed or privately supported institutions.

From these schools each year an army of young people drop out or are graduated. The graduates from elementary, secondary, or collegiate school are invariably assured that this step is but a "commencement." Presumably their school training will function later in life in the getting of more education. Assuredly those who make a commencement on their own initiative by leaving school before they graduate will find even greater need of getting more education. As the need for specific vocational training arises, they will pursue studies designed to make them more effective producers. As they develop a taste for avocations and seek a worthy use of leisure they will pursue liberal or cultural studies designed to make them wise consumers. Some who through necessity or lack of wisdom left school before they had acquired the foundations of a good education will strive to remedy this former loss by taking courses designed to fill the gaps in their elementary or secondary education.

Most of this we had taken for granted. We believed, rather than knew, that post-school educational opportunities were offered, adequate for expressed needs, varied in response to the demands of typical groups, suited to the

desire and comprehension of adult learners. They ranged from reading clubs, chautauquas and lyceums, through university extension courses, correspondence schools, workers' educational classes, private schools of commerce and mechanics, to the wide offerings of the free public evening schools and the special offerings maintained in part-time schools and apprentice training schools.

The general objective of the Adult Education Study is to determine the present day extent of these types of educational activity; to try to discover how many people and what kind of people use them; to portray their subject matter, methods of instruction, and general effectiveness. A particular objective is to try to discover whether with decreasing hours of labor and increasing hours of leisure there is a dormant or potential demand among adults for an increased offering of cultural or liberal studies as distinguished from vocational or strictly utilitarian subjects.

At the beginning of the study it became obvious that we have a large group of young workers who have either graduated or dropped out from the regular day elementary or high school. They are not adults so far as age is concerned; yet by the very fact of leaving school to go to work they have taken on many adult responsibilities. This group, if any, should avail itself of post-school opportunities for further education. So it was decided that whereas the study as a whole should discuss various types of educational opportunities, one unit should be directed to a study of the young worker group and should take in such a cross-section of different types of schools as would include those which specialize chiefly on training young workers.

The group, then, consists of the boys and girls who have left school to go to work. Their ages range from about fourteen years to an upper limit of about twenty-

two years, although sometimes it is advisable to include those who are a few years older. Practically two-thirds of them left day school with no more than an elementary school education. Hardly one in ten completed high school. They work at home, on the farm, in store or factory. A few of them approach the threshold of their entrance into employment with lingering footsteps and longing backward glances at the school which they regret to leave; but most of them plunge joyously to the great adventure. Little do they know or care what lies before them.

Sooner or later they meet the need for further guidance and training if they are to earn a living and live a life. Some are at once constrained through legal enactment, labor organization policy, or plant practice to enroll for definite training in part-time school or apprentice class; many, after a few months or years of freedom from the compulsion of school, voluntarily enroll in evening schools; a few, but the number is increasing, are fortunate enough to come in contact with a local guidance bureau where trained counsellors help them to find a job with a future or direct them to opportunities for continuing education. Many, in fact the great majority, desire no more schooling, or make no effort to get it, and instruction stops except for those younger ones who are required to attend a part-time school.

The purpose of this unit of the Adult Education Study is to trace the historic development of educational opportunity for employed youth; to show the needs of this group to-day; to describe existing opportunities for meeting these needs; to discuss the relative efficiency of these opportunities, portraying some types of successful agencies; and to suggest where emphasis should be placed in the educational program of the near future.

This unit tends to concentrate on cooperative classes, apprentice training, public evening schools, continuation

schools and guidance agencies. In general it treats other agencies briefly, usually for the purpose of showing their relation to the types of educational opportunity just mentioned, which specialize on the younger group of workers. Accordingly this unit touches only lightly on such agencies as college extension, the work of county agents, correspondence schools, philanthropic schools and the community center work or general lecture and recreation agencies.

No attempt was made to get information by a questionnaire method. The writer has relied on existing material recently issued in bulletins or other publications. The response of educators, however, has been so cordial and generous that it has been possible to incorporate the findings of a number of very recent unpublished researches. The indebtedness of the writer will be recognized by those who are familiar with recent writings in this field. He has tried to be punctilious in giving credit for each item of essential information and sincerely hopes that he has not been guilty of any omission. Special acknowledgment is due for the generous help accorded by members of the staffs of the United States Bureau of Education, the Department of Agriculture, the Children's Bureau, the Federal Board for Vocational Education and the State and Municipal school officials in the districts mentioned in the text. So many have contributed that it is impossible to mention them by name.

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**EDUCATIONAL OPPORTUNITIES
FOR YOUNG WORKERS**

PART I

THE DEVELOPMENT OF THE PRESENT
SITUATION

CHAPTER I

THE HISTORIC IMPORTANCE OF THE YOUNG WORKER

Apprenticeship among the ancients. The problem of training young workers is not new. Ancient Babylon made rules governing apprentice relations in the code of 2100 B. C. Plato and Xenophon mention apprenticeship as a well established institution. Ancient Rome and Roman Egypt also provide instances.¹ No great stretch of imagination is needed to visualize the boys and girls of ancient times facing the prospect of taking their places as young workers with zest equal to that of youths of our own time. Doubtless even in those days there was shaking of gray beards and nodding of maternal heads, and many a doleful comment from veteran artisan or trader wondering to what bad end the younger generation was coming.

The rise of the guilds. But it was not until the system of trade apprenticeship of the European guilds of the Middle Ages developed that we get the beginnings of our modern system of definite instruction. Then apprenticeship meant education, as suggested by the German word "Lehrzeit" meaning to teach, or the French "apprentissage" meaning to learn. Then as now the educational system had to be adjusted to meet changing economic and social conditions. For centuries most of the people of England, Germany and northern and central France had lived as serfs on great estates, rendering service to the feudal lords, knowing little or nothing

about what occurred at a distance of even a few miles. About the year 1000 A. D. small towns developed.² They grew in size and importance as trade increased. Traveling merchants appeared, and the town dwellers learned that there was profit in producing more goods than they needed for home consumption in order that they might have some surplus to exchange for the goods of foreign merchants. As the towns grew in numbers and wealth, they also grew in power. With timely loans or by shrewd bargaining they bought release from feudal dues and service. These newly won rights were recorded in charters which granted the power to regulate trade and industry. Taxes were levied instead of tribute. As merchants and artisans learned that the power of groups was greater than that of individuals, they formed themselves into associations called guilds. They developed regulations for many kinds of detailed relations, and among these they developed a formal plan for training young workers.

Guild apprenticeship. The guilds were not labor unions in our modern sense. Rather, they were associations of employers. In general, apprentices and journeymen could not belong to the guild. The master workmen owned the shops, tools, and machines, and determined the policy of the guild. Frequently these policies could be enforced by government authority. Hours of labor, the number of apprentices allowed to each master workman, and the time to be spent in learning the trade were determined by the guild. The usual term of apprenticeship was from five to nine years. The apprentice received no pay, in fact he frequently had to pay a premium for the privilege of learning the trade. During this time he was in intimate daily contact with the master workman and was instructed in every detail of the craft. In addition the fact that he ate at the master's table and was responsible to the master for his conduct abroad,

made the training truly one in the development of civic and vocational intelligence. At the end of the apprenticeship period and in proof of his skill he was required to produce a master-piece of craftsmanship in his special field, a practice which has come down to modern times in the requirement that a candidate for a professional degree shall submit a thesis.

Guild apprenticeship originated because of changing economic and social conditions arising from the growth of towns. It declined for the same reason, as increasing growth of towns brought further complications. As the number of skilled workmen increased, proper supervision of apprentices by the guilds became increasingly difficult. Special courts were established in England to decide the many complaints of violation of guild regulations. As control of the training of apprentices relaxed, the number of partly trained workmen increased. Between 1600 and 1700 the power of the guilds and consequently the thoroughness of training of the apprentices declined rapidly.

While it existed, however, the guild apprenticeship provided a training for young workers not only well adapted to the needs of the time, but also, in striking degree, directed towards much the same objectives as our modern part-time schools.³ It provided him with a "steady" job with a future. The master was expected to give the boy some moral and religious instruction and to train him in the "art and mystery" of the craft. This provided both ethical and cultural guidance. As the master watched the boy working at his side in the shop or performing those tasks of household or personal service which were part of his obligation, there was opportunity for those contacts which we try to get through "related work" and "follow-up." The broadening experience which we try to give in prevocational shops and in in-

struction supplementary to the job was there provided by operations covering every phase of construction. That the gap between the sheltered life of childhood and the bewildering complexity of industrial life should be bridged was implied in the very meaning of the word apprenticeship—apprehendere—to “catch on.”

As time passed membership in the guilds was more and more confined to the old handicraft trades. New industries arose, such as the manufacture of glassware, porcelain, and silk and cotton goods,⁴ which became independent of the guilds and were granted special privileges. A group of middlemen appeared to handle the goods manufactured by small tradesmen, especially in the smaller towns, with consequent encouragement to the spread of the domestic system of manufacture. The Statute of Apprentices enacted in England in 1563 and not repealed until 1813 attempted to limit apprenticeship to incorporate or market towns, but the law could not be enforced. It did tend to prolong the use of the formal indenture of apprenticeship, and fixed a tradition of long time apprenticeship which was transplanted to the American colonies. Further, it vested control of apprenticeship in the government instead of in the craft guilds.

Mediæval child labor. There was child labor in those days, as well as apprenticeship. From early times children were employed in large numbers, not only in agricultural and domestic work, but also in practically all trades and handicrafts.⁵ The abuses which developed later under the factory system did not exist, because although children were employed in large numbers probably for as long hours and at as hard work as under the early factory system, the regulating of apprentices tended to control conditions for all young workers, both apprentices and others. Among other things these regulations provided for complete technical training; limitation of the number of apprentices and, sometimes, limits

on educational qualifications below which children could not be employed; good working and living conditions during the period of training. The effect of these restrictions was beneficial to all child workers, whether apprentices or not. The enforcing of a compulsory schooling law is thus described in the records of the Baron Court of Stitchell.

The Barron Court of Stitchill halden at Stichill Kirk be the Right Honourable Sir Robert Pringle of Stichill Knight Baronett Heretable Proprietor of the Lands and Barronnie thereof upon the 20 day of October 1688 yeares.

At also the said day the said judge sittand in Judgment anent one complaint given in be the said schoolmaster which the said Judge taking to his consideration inacts statutes and ordaines the haill tennents within the said Barronny who has children capable to learn to send their children to the publict schooll betwixt and Tuesday nixt under the pain of ten pounds Scots ilk failzie and that none of the said tennants or cottars that have daughters shall send to any sewing school in the Barronny till they have been two full yeares reading at the said publict schooll under the pain forsaid of ten pounds for ilk failzie toties quoties and ordaines the officer to put the said Act to executione.

Ita est Jacobus Pringle Notarius Publicus cler. attestor.

The laws quoted are found in the records of the Baron Court of Stichill which have been printed for the Scottish History Society. Stichill is in Roxburghshire—three miles north of Kelso.

Ten pounds Scots was not a very large sum when compared with ten pounds sterling; but in 1690 twelve pounds Scots would buy a mare and sixteen pounds a cow, so the penalty was not light.

Of the relative grievousness of the sin of not sending

children to school one may judge by the following examples:

Isobell Henderson "scandalized Isobell Hogart in her good name" (details given) and used "other opprobrious expressions and imprecations" and for this she was fined only five pounds Scots.

Another gentle creature "struck, dang, and bled" her father and for that was fined only five pounds.

It is true that a cotter and his sweet and mild help-mate who did beat and stone a neighbor were fined ten pounds but note is made that this deed was done on the Sabbath Day.⁶

Early American apprenticeship. In general the colonies carried the outline of the English system of apprenticeship across the ocean. Many of the statutes required that the apprentice be taught to read and write, that he should be given Biblical instruction, and that the master should be a moral man. The system was complicated however, by the fact that sometimes it was used as a punishment for debt, the indenture being made out for apprenticeship instead of for servitude.¹ Sometimes those deemed idlers were bound out, and sometimes the indenture was used in placing children without parents or those whose parents were unable to support them. As a result, on occasion indentured servants received the benefit of trade training, and at other times apprentices were treated like bound servants. This system continued to the time of persons still living, especially where, as in the South, the handicraft rather than the factory system existed.

The final stage, however, of the passing of the old-time apprentice system, was under way even while the American colonies were beginning the revolution which resulted in the formation of the federal union. The application of power—water-power, steam power, and later electric power,—to manufacturing processes, put in mo-

tion a combination of economic and social forces which completely changed the status of young workers, not only in America but throughout the industrial world.

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6. This quaint record was contributed by Miss Louise Eickhoff of Hollingsworth Continuation School, Philadelphia.

CHAPTER II

THE INDUSTRIAL EVOLUTION AND THE YOUNG WORKER

Power-driven machines replace hand tools. The industrial evolution began when hand tools were replaced by power driven machines. There is no hard and fast date to mark its beginning. The change began to make itself felt about 1760. By this time the demand for increased production of goods to supply expanding trade turned the minds of men toward the invention of labor saving devices. It was the age of invention. Before this era, in all the history of the world, there had been only three epoch making inventions—gunpowder, printing, and the mariner's compass. Crude applications of water power there were, to be sure, but these were rapidly proving inadequate to the increased demands caused by the growth of towns and the rapidly expanding trades. Wider contacts required more production of goods, and this in turn required larger and swifter processes. Agriculture, manufacture, mining and transportation reacted mutually to changing conditions. As far back as Queen Elizabeth's time the growing demand of the iron manufactures for charcoal for smelting threatened to wipe out the forests of England. Statutes were passed limiting the use of charcoal, thus forcing the iron industry to change to the use of coal. The consequent increased demand for coal caused the miners to extend their shallow surface pits and follow the veins deep into the earth. There they encountered water, and the problem of pumping out the

mines became serious. Meanwhile the hauling of the increased coal out-put required better methods of transportation. The mine owners called for more strap iron which they fastened on wooden rails for hauling coal from the pit mouth to the water routes. The iron masters called for more coal that they might make more iron. And the coal miners were being driven from their pits by the seeping waters.

Necessity, as usual, mothered the needed inventions. Contrary to popular tradition, the solution of the problem was begun long before James Watts saw visions in the chattering lid of a bubbling tea kettle. That beginning was made when Thomas Savery and Thomas Newcomen built a steam pumping engine to lift the water from the coal mines at Newcastle. It was a fifteen year old boy worker, Humphrey Potter who made the next step. Humphrey's job was to stand by the engine and at every stroke to turn the valve which admitted steam to the piston. Boy like, he wished to play, so with rude contrivances of sticks and strings he tied the valve handle to a moving rod of the engine and made its action automatic. Then he played. Little did he realize that he was one link in the chain of events which would drag other boys from their steam valves and fasten them to the monotonous toil of the textile mills.

Fifty years later in 1769 James Watts, then a skilled instrument maker in the University of Glasgow, was confronted with the task of rebuilding one of the old Newcomen engines. Instead, he remodeled it and became the maker of the best steam engines of his time. Fifty years later, in 1801, Richard Trevithick mounted an engine on wheels, thus making the first locomotive. Meanwhile industry was adapting itself to the flying shuttle of Kays in 1738, the spinning jenny of Hargreaves in 1767, the horse and power loom of Arkwright in 1784. The era of better roads and canal construction from 1790 to 1804

was followed by Stephenson's locomotive in 1814 and the first railroad in England in 1825.

During and since that period the relation of the worker to his task has been completely changed by inventions in increasing numbers. The wooden plow, scythe, cradle, and flail have been replaced or supplemented by the steel plowshare, gang-plow, mower, reaper, binder and thresher; the carrier wagon by the locomotive; the messenger's pouch by the telegraph, telephone and radio; the candle mould by the electric light; the horse by the tractor, automobile and aeroplane; the pen by the typewriter; the cashbook by the adding machine; the town crier by the newspaper. Within the memory of four generations the world has been remade. All groups of people have been profoundly affected. In this swift transition the training of young workers has in every decade been a compromise between the traditions inherited from the previous generation and the necessity for immediate adjustment to new working conditions which changed even while the adjustment was in process.

The effects of the industrial evolution. While the old guild system of production was disintegrating and the modern factory system was developing a "domestic period" prevailed. In America the guild system had little vogue but the domestic system endured until about 1820. Larger mills and machines took over processes which had been carried on in the household. Grist mills ground the grain for a community, fulling mills thickened the cloth which had been spun and woven at home. Iron mills turned out rods which in the long winter evenings were hammered into nails by the light of the household fire. During this period in America the training of young workers languished. Indenture did not carry the obligations of apprenticeship. Much of the mill work was done by servants and slaves. In the northern states, however, a considerable amount of real apprentice in-

struction was retained.¹ In fact, even to the present day in sparsely settled districts, the grist mill still maintains a remnant of the old domestic system and in the largest cities in some of the highly skilled trades a real apprenticeship training remains, but its function is limited to developing only vocational skill. In its essence of all round training the old apprenticeship exists only as a persistent tradition. It can not return, any more than the flail, the Conestoga wagon, or the hand loom can return.

— This is easily proved by a recapitulation of the effects of the industrial evolution.

✱ The factory system entailed the subordination of the worker to the machine. The conscious application of energy, care, and thought by the worker was largely replaced by the power, automatic action and precision of the machine. On the one hand were collections of capital in large amount to provide the machinery, on the other hand the setting off of collections of workers into centralized and strictly regulated establishments.

The apprentice, even though yet called by that name, no longer enjoyed the old relations of personal contact and mutual obligation with his employer. A fixed wage rather than a personal appreciation measured his value. Conditions of employment and hours of labor were determined by the employer. When Humphrey Potter made his engine valves automatic he thereby destroyed his own job and that of all other boys similarly employed. Each new invention to greater or less degree had this effect. To be sure eventually there were more jobs and steadier employment, provided one were fortunate enough to discover the new job and adaptable enough to fit into it. Industrial workers as a group were benefited but many individuals could not or would not readjust themselves and they suffered. One displaced group competed with another for new jobs. The capitalist became the exploiter of child labor. The young worker became the

antagonist of his employer. Even more important, he became the antagonist of the journeyman worker. There was a premium on half skilled labor. The mature craftsman was frequently supplanted by a child worker at a child's wage.

Expanding markets widened contacts and introduced world competition, fluctuating prices, with periods of over-production, of panic, and of unemployment. The technique of industry tended ever toward greater subdivision of labor with consequent monotony, drudgery, lack of interest in the worker, lack of educational value in the task. As improved means of transportation tapped the world's reservoir of labor, the situation was further complicated by the immigrant and the child of the immigrant.

Little towns which had been comfortable dwelling places increased in population faster than they could increase in facilities for proper care of the population. Water supply was inadequate, control of public sanitation became impossible, rentals increased, sickness and poverty multiplied. If children worked the adult workers were displaced; if children did not work, the family income was unequal to the family support.

As the public lands were taken up farming as an escape from the factory became increasingly difficult. In fact the reverse movement occurred and those workers, especially the girls who had been employed in farming and domestic manufacture, came in increasing numbers to the factories and augmented the problems of factory employment and of urban life.

In England by 1835 more than one-third of the mill population consisted of children, half of them under fourteen years of age. Beginning in 1832 a series of acts was passed reducing the hours of labor for women and children and improving the condition of apprentices, so called, although they were really unhappy little factory

hands. It was not until 1906 and 1908, however, that measures were finally passed which reduced the evils of sweatshop employment, industrial accidents, unemployment, and child labor.²

In Germany and Austria conditions were similar, but not so bad because of the continuance of hand trades and the early establishment of part-time and continuation schools. Similarly in France, Switzerland and Denmark provisions were made for safeguarding apprentice instruction.

In America the period of domestic manufacture tended to endure longer than in Europe because Europe needed our agricultural products rather than our manufactured goods. Scarcity of labor made wages high and capital was not abundant. Although Slater's textile mill, the first of its kind, was established in Pawtucket in 1789 there were only four factories for cotton operating in 1804. Before the Revolutionary War all of the New England colonies and New York had laws requiring that apprentices be taught reading, writing, and arithmetic in either day or evening schools. The effect of this legislation was felt until the close of the domestic period. The conditions under which the early settlers came here made them very tenacious of what they considered basic rights, life, liberty, property, and equality; and the conditions of pioneer life tended to erase distinction of classes. So American workers were not exploited to the extent that prevailed in England. Nevertheless, the general trend of the effect of the industrial evolution was the same as in England. Beginning about 1812 factories were first generally erected. The textile industry was well developed by the middle of the century, but the extension of the factory system to general manufacture did not take place on a large scale until after the Civil War.

Against the figures showing the extent of child labor in England in 1832 may be set the fact that in 1820 in tex-

tile mills in Massachusetts boys and girls constituted 43% of the laboring force; in Connecticut, 45%; and in Rhode Island, 55%. This probably means children under sixteen years of age.³

As late as 1860 the population in cities of more than 8000 was only 16%, of the total; but by 1890 it was 36% in towns of over 2500; in 1900 it was 40.5% and in 1920 it was 51.3%. With this increase in urban population came a repetition of the English experience so that by 1880 most of the basic experience of England had been duplicated here.

The American technique of industry has increasingly developed along the lines laid down by the industrial evolution. Large scale industry and highly subdivided processes accentuate the difficulties of adjusting the young worker to this complicated system. Between 1889 and 1919 the increase in the number of establishments was 40%; of wage earners 80%; of capital 400%; and of value of products 460%. This enormously increased production implies a correspondingly large consumption. Out of the stress and turmoil of the early days of the system is emerging an improved basis of distribution. The evils of the industrial evolution have been catalogued. The benefits are implied in the terms large production, large consumption, fair distribution.

Much remains to be done, especially in the field of distribution. Nevertheless and in spite of many evils attendant upon subdivided industry, workers as a whole have benefited greatly by the change. This is shown by comparing typical situations of the early days with those of our own time. Let us survey the home of the working youth of 1784.⁴ Instead of carpet or rug there was sand sprinkled on the floor. Wall paper, bath tubs, books and magazines, glassware, china and pictures were lacking. A stove as we understand the word did not exist. Matches were unheard of; fire was obtained with flint and steel or

by bringing a live coal from a neighbor's fire. Fresh meat was a once-a-week luxury. A bushel of corn cost a day's wage, a bushel of wheat three times as much. The son followed the trade of the father and dressed like him in leather breeches, coarse shirt and red flannel jacket. The daughter busied herself with the household tasks of today and also milked the cow, made butter, walked ten blocks for a pail of water, and spun the flax for the family linen. What would be her reaction to the bargain basement of the modern department store?

Here is a description of Sheffield, England, in the good old days of 1615. The industrial evolution changed Sheffield from what is here described to a modern city of three hundred thousand.

A curious document sets forth that, "by a survaie of the towne of Sheffild, made the second daie of Januarie, 1615, by twenty-four of the most sufficient inhabitants there, it appearth that there are in the towne of Sheffild 2,207 people; of which there are 725 which are not able to live without the charity of their neighbours; these are all begging poore. One hundred householders which relieve others. These (though the best sorte) are but poor artificers; among them there is not one that can keep a teame on his own land, and not above tenn that have ground of their own that can keep a cow. One hundred and sixty householders not able to relieve others. These are such (although they beg not) as are not able to abide the storms of one fortnight's sickness, but would be thereby driven to beggary. One thousand two hundred and twenty-two children and servants of the said householders, the greatest part of which are such as live of small wages, and are constrained to work sore to provide them necessaries." ⁵

Contrast this with the United States of today.⁶

In the forty centuries of recorded history previous to the American Revolution, the total accumulation of the

wealth of the world was estimated at one hundred billion dollars. In the 150 years since that time this has been increased ten-fold, of which America alone holds three hundred billion. We have only 6 per cent of the world's population, but we produce 54 per cent of the world's output of iron and consume 53 per cent; 49 per cent of the copper and consume 44 per cent; 69 per cent of the cotton and consume 37 per cent; 41 per cent of the shoes and consume 39 per cent; 43 per cent of the printing paper and consume 50 per cent; 92 per cent of the automobiles and consume 90 per cent. The average annual per capita consumption of news print in the United States is 150 pounds as against 76 pounds for England, 12 for Japan, and 6 for Russia.

Since 1781 the production per day per man has increased, in iron from 500 pounds to 5000; in lumber from 100 feet to 750; in nails from 5 pounds to 500; in shoes from $\frac{1}{4}$ pair to 10 pair. This acceleration of production and consumption increased with each decade. In 1900 we had one telephone for every 84 persons, in 1920 one for every 8. In 1909 we produced 350,000 phonographs, in 1920 a total of 2,500,000. In 1909 there were 226,000 students in institutions of advanced learning; in 1920 there were 416,000. In 1920 ten times as many children were in high school as in 1890.

These gains in living conditions have been accompanied by a general fall in hours of labor. Between 1860 and 1880 hours per week for employees in representative industries decreased an average of 6 per cent. Between 1880 and 1890 they decreased 3 per cent. By 1918 they decreased another 12 per cent. By 1919, of the total factory workers in the country 48.6 per cent were employed in plants working 48 hours per week or less. Today the percentage is even higher.

These are benefits of the industrial evolution. At the same time they indicate for what production, what con-

sumption, and what worthy use of leisure our young workers must be trained.

In evaluating the loss involved in the passing of the old apprenticeship and the substitution of the factory system with its evil and its good, there is chance for error in comparing the great group of young workers of today with the highly selected group which received the benefits of the old apprenticeship. There is much discussion of the deadening effect of monotonous subdivided operations under modern conditions. We must not forget that the old time apprentice and journeyman represented only a small part of the total population.¹⁴ Thousands were unable to develop the skill necessary for first class work and were, therefore, doomed to menial tasks. The modern factory with its great demand for semi-skilled operators offers a haven to this group. They get the stimulus of group contact and steady employment under conditions usually fair. And there are today more tasks requiring a high degree of skill than challenged the intelligent worker during the Middle Ages.

The industrial evolution has brought to the young worker the evils incident to the removing of educational features from his work, some monotony, speeding up and the accidents which result from speed and fatigue. There is evil in the repression of initiative and the lack of organizing experience in workers not self-controlled. Any experience gained is limited to a narrow field and usually is not transferrable to another field without special training which usually is not provided.

On the other hand there are benefits in the reducing of heavy lifting; usually steady employment; assured wages; frequently greater skill, dexterity and judgment; reduced hours of labor; lower prices; improved living conditions; and leisure time. The greater productivity of modern industry gives the modern worker opportunities for self culture which have neutralized some of the evils

of specialization. He is better clothed, better housed, and he lives a fuller life outside his work than he did in the days when the work itself was less narrowly specialized and more educational. The concentration of industrial life in towns, in spite of its peculiar evils, has stimulated intellectual life, and, with increasing leisure and income, done much to counteract the deadening effects of monotonous employment.

But the social system which accepts the increase of wealth due to intensification of work without devoting some of it to counteracting the effects of that intensification, outside work, is forgetting the end for which wealth is produced.⁷

That the social system did not forget the changing status of young workers during the period of the industrial evolution is evidenced by the steps taken in the parallel development in America of the free public day and evening school, of labor organization, of growth in the legal control of conditions affecting young workers, and of a steadily increasing period of training in which youth should be prepared for the increasing complexity of economic and social life.

All of these movements started soon after the beginning of the industrial evolution. There is no doubt that the form and speed of their development were directly related to the growth of child labor under the factory system.

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CHAPTER III

THE DEVELOPMENT OF THE PUBLIC DAY AND EVENING SCHOOL

DURING the colonial period the idea of free public school education for the masses did not prevail. Educational opportunities were confined to semi-private and semi-religious institutions where stress was laid on the three R's. Higher education was reserved for prospective lawyers and clergymen.

Some attempt at general compulsory education was made,¹ as in the Massachusetts decree of 1647 that every township of fifty families should appoint some one to teach the children to read and write, "It being one chief project of that old deluder, Satan, to keep men from a knowledge of the Scriptures." On the whole, however, general education was not deemed important nor was public support in the form of taxes considered necessary. So far as young workers were concerned the responsibility for grounding them in the rudiments was placed upon the master to whom they were indentured. It is therefore, more than a coincidence that the development of tax-supported public education paralleled that of the factories. Horace Mann in Massachusetts in the period around 1837 and Thaddeus Stevens in Pennsylvania in their activities represent the stirring questions of the day. The ideas of humanitarianism, freedom and labor organization were gaining and the need of an educated electorate was felt. The setting aside of school lands in the West was an earlier as well as a contemporary symptom

of the same impulses. Between 1825 and 1850 the common schools grew in strength and number until by 1850 they were well established in the Northern states. Instruction in the three R's was supplemented by the introduction of geography, history, and grammar. Yet in his reports as commissioner of education in 1850 and thereafter, Horace Mann urged the passage of a compulsory attendance law which was finally passed, and required the school attendance of all children between the ages of eight and fourteen years for at least twelve weeks annually. Secondary education which in colonial times had been confined to a classical course in private endowed academies—though the Boston Latin School was founded in 1634—was taken over as a public function in the establishment of the general high schools, in Boston in 1821, in Philadelphia in 1838, in Cleveland in 1846, and in most large cities by 1865. While girls were being enrolled as factory workers, they were also being admitted to the advantages of secondary education in the "Female High School" of New York in 1826; the Girls High School of Boston, tentatively opened for two years, 1828-1830 and reopened in 1852; and in Providence in 1843.

Specific attempts to meet the problems created by changing industrial conditions were made in the form of private evening schools, chiefly for adults and designed to supply the technical instruction which, with the passing of the old apprenticeship, was no longer available to workers. Thus, during the early fifties, Cooper Union and Mechanics' Institute were established in New York; Franklin Union and Spring Garden Institute in Philadelphia; and the Ohio Mechanics' Institute in Cincinnati.

General evening schools began to appear even earlier. They are simply mentioned in passing at this point, as the detailed story of their development demands and receives fuller treatment later.

The conscious efforts of leaders in education and the

more or less unconscious reaction of the mass of the people to the idea that an increasing amount of general education was needed as preparation for working and social conditions which grow constantly in complexity, resulted in a steady increase in the total amount of formal schooling received by the average individual in a life time. This has been estimated as only 82 days in 1800. By 1840 it was 208 days; by 1860, 434; by 1880, 792; by 1900, 998. Even the frequently repeated criticism that as yet we are a nation only of sixth graders implies that this ascending curve of average accomplishment is still mounting.

The development of a general school system was, however, only in part due to a recognition of the growth of child labor. The very principles on which the young republic was founded together with the stimulation that came from rapidly expanding empire and the constantly rising standard of living were also important factors. The development and growth of organized labor, on the other hand, resulted directly from conditions introduced by the factory system, among which the control of young workers was one of the most important considerations.

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CHAPTER IV

THE DEVELOPMENT OF LABOR ORGANIZATIONS

Growth. The labor union was in no way an outgrowth of the old guilds. The guilds, as has been previously emphasized, were primarily organizations of artisan or merchant proprietors in the control of which neither apprentices nor journeymen had any voice. Its modern prototype is the employers' association rather than the labor union.

During its entire history, whether as the original craft unions or as the modern labor union, organized labor has played an important part in the development of means for maintaining training facilities for employed youth.¹

Beginning with local craft unions such as the Philadelphia Carpenters (1791), the Typographical Society of New York (1794), the Baltimore Tailors (1795), and the Baltimore Typographical Society (1803), they became labor unions about 1825. Of the four avowed chief aims of the early unions,—better hours, higher wages, regulation of apprenticeship, and the exclusion of "illegal men," the last two aims were concerned directly with the training of young workers, and the question of wages was also involved because of a constant tendency to substitute child workers at childrens' wages for more mature workers.

During this period a confusion of definitions arose which continues to the present time and constantly obscures the objectives of the training of young employees.

The tradition of the old long term apprenticeship continued and the term apprentice was loosely applied to all young workers. There was, and is need for a limited number of real apprentices needing a training period of several years to convert them into skilled craftsmen. A second group, those whom we now call semi-skilled operators, needed a shorter period of training, a few weeks or a few months, to qualify them for satisfactory service. The third group which may be described if not defined as child workers were used in positions where the training required to perform their tasks was negligible. This was the exploited group. They suffered themselves because they were the helpless victims of long hours, exhausting labor, and unsanitary working conditions. They were a menace to adult workers because they crowded the latter out of their means of livelihood. They were a menace to society because they came to years of adult responsibility equipped only with a child's vocational and civic experience and intelligence. As time went on the condition of this group of child workers was continually improved as appropriate legislation controlled their working conditions, as modern sanitary science and improving personnel relations established their place in factory administration, and as increasing subdivision of labor defined more sharply those tasks which were suited to workers of various age groups and degrees of maturity.

The ground for controversy was constantly harrowed by the fact that skilled workers who were competent to perform all round work were, under a system of subdivided operations, likely to be assigned to operations which could in fact be performed equally well by semi-skilled operatives. The skilled operative clinging as was but natural to the traditions of the past, was convinced that because he had arrived at his present position by the route of long term apprenticeship, there was no other route; that therefore, the semi-skilled operative who

threatened to supplant him, and who in fact often did supplant him, was a "half-baked" workman, an "illegal man."

There was, and is, enough of truth in this confused point of view, to perpetuate the traditions. The majority of leaders of labor organizations, of employers, of educators, and of social reformers recognize clearly the legitimate fields for long time apprenticeship, for intensive semi-skilled operative training, and for juvenile employment, just as they recognize the menacing possibilities of turning out "half-baked" workmen and of permitting the exploitation of child workers. The persistent tradition accounts for the point of view of those who advocate only the long term apprenticeship, or inaccurately speak of juvenile employment as "child slavery." The pronouncements of the last named group involve a real danger. In applying to the condition of the entire group of juvenile workers descriptions which are now true of only a comparatively small percentage employed chiefly in canneries and a few textile mills, they over-state their case and weaken the argument of those who strive for wise regulation. Their influence tends to weaken respect for the dignity of labor and to rear a generation of children who spurn any but "white collar" jobs and miss the worth-while experience of real work.

The local labor unions accomplished little in their efforts to control apprentice training until after the Civil War. As the colonial system of indenture regulated by law and contract was out-grown, it was succeeded by a plan of having each union develop its own rules. Abuses on the excessive use of boys led to increasingly rigid union requirements.² Later joint agreements were worked out between employers and unions. These four plans were successive, but with considerable over-lapping.

The development of national unions began with the National Typographical Society in 1836. The movement

spread so rapidly that by 1860 national unions were formed by 26 trades. The formation of the Knights of Labor in Philadelphia in 1869 gave impetus to the movement. Since the American Federation of Labor was formed in 1881, problems of education, especially those dealing with young workers have received increasing attention. This has resulted in the development of policies which, increasing in scope and detail up to the present time, have had a decidedly beneficial influence on the school education and the post-school education of young workers.

Before these policies are discussed, however, it is worth while to trace some of the specific activities of the unions through the years.

Attempts to control apprenticeship. There was constant friction due to the practice of hiring partly trained boys. When the modern trade school teacher declares that his pupils will not remain to complete the course but are constantly lured away by the prospect of an immediate job at an attractive wage, he voices no new complaint. As far back as 1809 the New York Typographical Society² complained of "the practice of employing what are termed 'halfway' journeymen, and of boys who 'elope' from their masters as soon as they acquire a sufficient knowledge of the art to be enabled to earn their bread." By about 1865 the tendency of employers to hire half-trained boys and to combat union attempts to limit the number of apprentices brought about a long struggle in which, through lack of cooperation, neither side could maintain an adequate apprentice system.²

Between 1860 and 1870 petitions were presented to many state legislatures for laws requiring that the apprentices should be legally bound for five years; that the master be required to teach him the entire trade and provide necessary schooling; that the master should be responsible for his moral training; and that the number of

apprentices should be limited. The attempt to limit the number of apprentices by law was not effective, but the other provisions were enacted. By 1908 all of the 46 states belonging to the Union had laws, except Idaho, Nebraska, and Wyoming. Nearly all of these laws protected the minor apprentices, all provided that masters should teach the apprentices the trades, while 36 states required that the apprentice also be taught the common English branches of education in some public or other school, or through other means provided by the employer.³

From 1865 to 1885 the unions were especially interested in opposing changes which permitted the substitution of machinery for hand labor, and the use of semi-skilled workers for well trained craftsmen.^{1a} They feared that these changes would bring an increasing supply of cheap labor from Europe. By regulating apprenticeship they hoped to accomplish their aims. It is an interesting fact that in spite of the long drawn out controversy over apprenticeship few strikes or lock-outs were caused directly by this question, although it was frequently a subordinate issue in strikes originating from other causes. An equally interesting fact is that employers rarely availed themselves of even the limited number of apprentices prescribed by the unions. Thus in Massachusetts in 1890 when various unions allowed ratios of apprentices to journeymen of 1 to 4, 1 to 5, and so on up to 1 to 10, the actual number taken on by employers ranged from 1 to 12 up to 1 to 25, 40, 50, 60, or even 288.⁴ As far back as 1869, out of 52 employers 46 stated that they themselves had served as apprentices in their youth, but only 26 were then employing apprentices. The chief reason for this condition was that employers were unwilling to take the trouble to train apprentices who would probably abandon them either before or directly after completing their term.

As showing the extent of the apprentice system in 1904 ^{2a} 50 of the 120 national and international trade unions affiliated with the American Federation of Labor did not attempt to maintain apprentice systems. By this time the labor unions were coming to advocate better technical instruction to supplement the work of the shops. Some trade union schools were established. The most important departure from previous practice began between 1907 and 1912, in the development of cooperative arrangements entered into by the employers, the public schools, and the labor unions. Motley's classic investigation was published in 1907. Yet, at that late date, he does not mention one instance of any schooling, or school cooperation in connection with apprentice training except (p. 96) that of stone cutters in Baltimore paying the tuition of their apprentices to Maryland Institute for instruction in the principles of drawing and sketching.

Douglas, writing just ten years after Motley, starts thus: "Perhaps the most important educational movement of the past decade has been that of industrial education. The cause lies in the failure of the shop to provide proper industrial training for its young employees."

Thus ended a hundred years of effort to reestablish the old apprenticeship. It failed, partly because of the disregard of apprenticeship rules by both employers and unions, more because of changes in business organization and industrial technique. The subdivision of labor had increased so much, even in the building trades, that employers would no longer take the time and trouble to train long term apprentices. The young workers themselves, with the uncanny intuition of youth, sensed this. They decided that they would have no chance to practice all round workmanship and that it was not worth while to spend three or four years in training for work which in fact they could prepare for in a few months.

General policies toward education. Up to this point we have discussed chiefly the attitude of organized labor toward the old apprenticeship. A fair presentation demands further consideration of its general policies toward education.

As far back as the first convention of the American Federation of Labor in 1881 the organization recognized that changing social conditions demanded readjustment of educational opportunities.⁵ Beginning with an endorsement of legislation for compulsory school attendance it has at practically every convention since that time recorded its stand for improved educational opportunities for school children, young workers, and adults. Its platform may be summarized as follows:

A minimum school leaving age of 16 years; free text books; a fair presentation adapted to the maturity of the pupils of the history of organized labor; classes small enough for effective teaching; adequate salaries and reasonable tenure for teachers; more democracy in school administration; training in citizenship under intelligent supervision; the elimination of adult illiteracy; the teaching of all subjects in the English language; physical education, ample playgrounds, and continuous medical and dental inspection; wider use of school plant; adequate building programs.

In addition to such recommendations covering general school conditions there are numerous statements bearing directly on the problem of young workers:—Industrial education should not displace any of the present general education, but should be added to it. Up to the age of fourteen the pupils' time should be devoted to general education; after that industrial education can begin. The economic need and value of technical training is not to be disregarded and cognizance should be taken of the fact that throughout the civilized world, evening and part-time technical schools enroll twenty pupils to every one

that attends the other types of vocational schools. Technical education should be conducted by the public at public cost. Industrial education must be based on a careful survey of industrial conditions and trade requirements and should meet the needs and requirements of the workers, as well as those of employers and industry. Industrial education shall include the teaching of the sciences underlying the various industries and industrial pursuits being taught, their historic economic and social bearings. There should be development of vocational guidance and industrial education in both urban and rural communities. It is important that industrial education should have for its purpose not so much training for efficiency in industry as training for life in an industrial society. Continuation schools are recommended, of the part-time day type for the younger boys and girls, of the evening type for more mature workers, and of the all day trade preparatory type for boys and girls between 14 and 16 years of age. Compulsory part-time day schools for all children in industry between the ages of 14 and 18 for not less than five hours per week at the expense of their employers are recommended. Teachers should have practical trade experience. The turning out of machine specialists and the flooding of the labor market with half-trained mechanics is condemned. While subscribing to any plan which offers efficient instruction in practical production they insist that emphasis be placed upon education rather than product. The curriculum should include civic and social studies as well as trade technique.⁶

On the whole the attitude of organized labor today is that the education of young workers is a public school problem. This problem involves giving the children of all the people a good common school education up to the age of fourteen years, expanding the offerings in social and civic education, laying the foundation of a rather broad vocational education up to the age of sixteen by the

use of practically trained shop instructors and competent vocational counsellors, providing for continuing part-time education in day continuation and evening schools in social studies, technical information and specific trade instruction. All this implies that the boys and girls shall be in the schools and be physically not too fatigued to profit by instruction. The progressive steps by which these two conditions are assured next deserve consideration.

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CHAPTER V

THE GROWTH OF LEGAL CONTROL OF SCHOOL AND EMPLOYMENT

Control in England. When the widespread movement of children into industry began, at the time of the introduction of the factory system, little interest was aroused for the welfare of the children. The usual practice was for children of the working classes to go to work as soon as they were able to secure employment. Conditions of labor were not considered harmful. Since work made children self-supporting and kept them from the temptations of idleness, child labor was regarded by practically every one as economically necessary and morally desirable.¹ Even after the English investigation of the abuses resulting from the so called apprenticeship of pauper children had revealed that these and other children were working under bad conditions, legislative reform was slow. In England the first act (1819) applied only to cotton mills. It prohibited the employment of children under nine years of age and limited the working hours of children under sixteen to 12 hours a day. Later (1833) the employment of children under nine years of age was prohibited in all textile mills. The first 48 hour law was passed, but it applied only to children under thirteen years. Those between thirteen and eighteen were limited to a 12 hour day and a 69 hour week. This law also created the first system of factory inspectors. Subsequent laws made slight improvements, such as the compulsory school attendance law of 1876 which raised

the compulsory school age to 10 years. Not until 1901 was the employment of children under twelve years prohibited in factories and workshops. As for those in agriculture and domestic service, no provision was made.

Later Parliamentary investigations revealed the need of sweeping reforms. The result was the Fisher Education Act of 1918, the most advanced legislation on the education of young workers ever passed by any nation. Unfortunately however, financial difficulties arising from the World War have so far prevented putting this legislation into effect. It applies to all children in gainful occupations including agriculture and domestic service. It prohibits the employment of all children under twelve, requires the full time school attendance of all children up to the age of fourteen years, and the attendance at continuation schools of all children up to sixteen years of age. Eventually the required continuation school attendance will include those up to eighteen years.

Control in the United States. In the United States the legislation which has been enacted tended at each stage to set a higher standard than the English, but, because it was enacted by the various states, there was great variation in requirements. Our national characteristics of intense individualism, regard for principles of common law, and strict interpretation of constitutional provisions, have combined to make our progress slow and uneven. Our laws have lacked uniformity and standardization.

The acceptance of child labor as an established custom prevailed here as in England. When the evil of lack of education among working children was recognized, the first efforts were directed toward providing compulsory schooling for them. Connecticut threw the burden on the employer and in 1813 passed an act requiring proprietors of manufacturing establishments to furnish education for their juvenile employees. Massachusetts

threw the burden on the schools and in 1836 required each year three months of schooling for children under fifteen employed in manufacturing. By 1860 Rhode Island, Maine, New Hampshire and Pennsylvania had passed similar laws.

The regulation of conditions in the factories was started in 1842 by the passage of laws restricting to 10 hours a day the work of children under twelve years of age in Massachusetts, and under fourteen years of age in Connecticut cotton and woollen mills.² Pennsylvania followed in 1849 with a 10 hour day for women and children in certain industries. During the next two decades similar laws were passed in New Hampshire, Maine, New Jersey and Ohio. Rhode Island in 1853 enacted an 11 hour law for children between twelve and fifteen years. Later Connecticut raised the hours to 11 and 12.

The reasons assigned for these laws were: (1) provision of educational opportunities for those employed in industry; (2) the protection of moral and religious training; (3) the prevention of disastrous competition with adult workers; and (4) the protection of the health of the children from the evil effects of excessive hours and bad conditions of labor.

Having thus made some provision for education and for limitation of working hours, the next movement of the states was to limit the age below which children might not work. Commencing shortly before the Civil War, laws were passed prohibiting the employment in manufacturing establishments of children under twelve in Rhode Island, twelve to thirteen in Pennsylvania; nine to ten in Connecticut, and ten years in New Jersey. Experience showed then, as now, that laws passed without adequate provision for enforcement were of little use, so Massachusetts in the law of 1866 which prohibited the employment of children under ten years of age in manufacturing establishments, required three months' schooling each

year for child workers between the ages of ten and fifteen, with 60 hours a week as a maximum for employment, also provided for annual reports, and penalties for violation.

By this time public recognition of the abuses of child labor had been established as well as the right of the State to correct those abuses by appropriate legislation. But only a few states had passed such laws, and among them provisions for enforcement were generally inadequate. Activity was, moreover, confined to the industrial states of the North and to manufacturing industries. Later developments included prohibition of night work, and of hazardous employment. At first this was interpreted to mean moral hazard and was directed towards immoral exhibitions and other occupations regarded as vicious in themselves. Beginning about 1900, however, the practice started of listing specific occupations, such as in mines and canneries, and certain machines, as hazardous.

Control in recent years. The movement for the legal protection of child workers has made its greatest strides in the United States only during the past twenty-five years. All of the 48 states, as well as Hawaii and the District of Columbia, have enacted legislation. Little uniformity exists in this legislation. In general, provision is made for retaining children in day school until fourteen years of age and the completion of a certain grade. In actual practice, however, many exemptions are allowed, based usually on relations to school attendance, nature of employment, poverty, and emergencies. The 1920 census revealed that more than half (328,958) of the children reported at work on farms were under fourteen years of age, as were five per cent (9,473) of those engaged in manufacturing and mechanical pursuits. The number under ten years of age is not revealed by the census, but investigations of the Children's Bureau and other

agencies indicate that many young children are employed as farm laborers and in street trades.^{1a}

The extent of legal control of young workers through State legislation, as of September, 1924, is shown by this tabulation.^{1a}

- 48 have enacted legislation.
- 38 require some educational qualification.
- 30 require completion of a specified grade.
- 24 require completion of sixth grade or higher.
- 29 set minimum requirements of health and physical development.
- 22 make examination by a physician compulsory.
- 34 have an 8 hour day or a 44-48 hour week for children under 16 years.
- 42 prohibit night employment for those under sixteen.
- 46 forbid employment in factories or stores for those under fourteen years. The many exemptions have been discussed above.
- 6 and District of Columbia require day school attendance to the age of fourteen.
- 42 require day school attendance to fifteen years or higher. All laws have exemptions many of them crippling the effect of the compulsory provision.
- 45 and District of Columbia require employment certificates or work permits.
- 26 require attendance at continuation schools.

The reforms most urgently needed are:—

- (1) Uniformity of State Laws.
- (2) Elimination of some exemptions and administration of most of them so that they will not, as at present, permit the evasion of the general intent of the law.
- (3) Extension of provisions to include farm and domestic service.
- (4) Enforcement of existing laws. Divisions of responsibility, lack of inspectors, indifference and ignorance of officials, account for widespread violations.

The foregoing account indicates that interest in the welfare of young workers is now widespread and that a considerable amount of legislation has been enacted. Weaknesses or omissions in the laws are largely due to the fact that much of the legislation has been enacted within the past fifteen years. Some laws are still in the experimental stage. In many communities the state law has progressed more rapidly than local public opinion. Administrative experience is still in the formative stage. Pressure of heavy taxation has prevented the establishment of adequate enforcement. On the whole, however, the prospect for better opportunities for young workers is promising.

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CHAPTER VI

THE PROLONGATION OF THE PERIOD OF PREPARATION

Relation to industrial evolution. We marvel at the completeness with which the industrial evolution remade the economic and social world. We rarely appreciate the relative swiftness of the movement. A picture of life in 1400 B. C. would not differ greatly from one in 1400 A. D.¹ A moving picture of life from the dawn of recorded history to the present day would show slight change of action or of type of actors until the very end of the seven thousand year period. Suppose we sat for seven hours and watched it unreel, a thousand years to the hour, a hundred and sixty-five years to the minute. For six hours and fifty-nine minutes we should see the foreground occupied by kings and military leaders, curiously alike in action. The dim background composed of common folks changes little. The wooden plow of Abraham's time differs little from that shown in Queen Elizabeth's. Rarely does one from the background come forward into clear view. Six hours and fifty-nine minutes of this, and then, in the last minute, the change! That last minute represents the period from the beginning of the industrial evolution to the present time. The resources of England which then supported a population of five million now support fifty million. The United States grows from three million to more than a hundred million. Epoch making inventions appear by hundreds. The practice of democratic government grows from an

untried theory to an accomplished fact. The idea of universal public education in this country began less than a minute ago and is now in full swing. Personal initiative is freed, class barriers are weakened, the way to the top is opened on the basis of ability, not birth.

Economic and social institutions multiply. We have division of labor, competition, monopoly, large-scale industry, cooperative enterprise, the wage system.

All this in comparatively one minute, or the successive fractions of that minute. The speed is dazzling, the complexity is bewildering. No wonder if those about to release children from home life to entrance into this confusion of economic and social activity should hesitate, and decide upon the need for more maturity, more training, more guidance. "The increasing complexity of social life requires a longer period of infancy in which to acquire the needed powers; this prolongation of dependence means prolongation of plasticity, or power of acquiring valuable and novel modes of control. Hence it provides a further push to social progress."²

The doctrine of the prolongation of infancy in the human species, long recognized as a biological fact, justifies those restrictions of employment and expansions of educational opportunities for young workers which have already occurred, just as it will certainly require additional restrictions of the one and expansions of the other in the future. Opposition to this idea comes chiefly from those who do not appreciate the speed with which the change has come. There is no school counsellor who has escaped contact with the employer who argues that a fourteen or sixteen-year restriction on employment is all nonsense. He went to work at the age of ten and it never hurt him. Or with the parent who demands by what right the state deprives him of the privilege of sending his twelve year old boy or girl to work. The foreign born parent is especially addicted to this argument. He can-

not realize that in the few short years between his own youth and that of his child's, increasing complexity of life has required a longer period of preparation for life.

Steady growth of the movement. The trend of fifty years in American education gives the statistical evidence that the period of infancy is being prolonged. From 1870 to 1920 the percentage of children of school age, 5 to 18 years, enrolled in public schools was for each decade, 61.5%—65.5%—68.6%—72.4%—73.1%—77.5%. This steady growth shows the reaction, conscious and unconscious, to the need for more preparation. The amount of this growth is increased by the fact that while enrollment was mounting, average days of attendance for each child per year increased from 78.9 to 121.2.³

The number of children 10 to 15 years old employed during the same period, with the per cent they formed of that age group was:

Year	Number	Percentage
1870	739,164	...
1880	1,118,356	16.8%
1900	1,750,178	18.0%
1910	1,990,225	18.6%
1920	1,060,858	8.6%

This is evidence not of gradual or unconscious yielding to a biological law, but of the effect of drastic state legislation, enacted between 1910 and 1920 which halted the dangerously increasing percentage of child workers.

The present situation is shown by this tabulation.³

PERCENTAGE REMAINING IN SCHOOL FOR EACH AGE GROUP 1919-20

Ages	Boys	Girls	Total
14	86.2	86.5	86.3
15	71.9	73.9	72.9
16	48.2	53.3	50.8
17	32.1	37.2	34.6
18	20.5	22.8	21.7
19	14.0	13.6	13.8
20	9.3	7.5	8.3

Attention has already been directed to the fact that one important result of the industrial evolution was to open

the path to distinction to the mass of the common people. The opportunity for further education is an incentive and a means for forwarding this movement. With due allowance for the selective action of the schools which makes it impossible to determine just what is cause and what is effect, the figures on the relation of increased education to increased success are striking. Thus the chance of achieving distinction has been reckoned ⁴ as

1 in	161,290	without education
1 in	40,841	with 8th grade education
1 in	1,606	with high school education
1 in	173	with college education

A study of the 1922-23 edition of "Who's Who In America" shows that 77% have had college training; 14% had secondary or high school training; and less than 9% had less than high school training. The comparison of these figures with those of 1900 show that it is becoming increasingly difficult to achieve distinction without prolonged training. In 1900, 11 out of every 100 people listed in "Who's Who" had less than high school training; in 1923, the proportion was 8 out of every 100.⁵

The possibility of attaining distinction is, however, confined to a few of great natural ability. The granting of a chance to the average person to achieve his own maximum of accomplishment is an inherent right which, through lack of educational opportunity, was denied to many. The prolonging of the period of training may not raise the level of the many handicapped by sheer lack of ability, but it will lessen the number of those heretofore submerged before they came to a realization of their own capacity. They are not a group; they are individuals each one of whom in bitter truth could cry, "I did not have my chance!"

The advantages of prolonged training apply to the country as well as to the city.

In Tompkins county,⁶ N. Y., a survey of 769 farms showed that farmers with high school education were making nearly twice as much as those with only district school education, while those farmers with more than a high school education were making nearly three times as much as those with district school education. This was not due entirely to the advantage of greater capital as the farmers with more than district school education made considerably larger labor incomes than those with the same capital having only a district school education.

Evidently, in spite of the extra time spent in school, the high school graduates, on the average, became tenants two years younger and owners four years younger than those farmers having only a district school education. At a lower average age, they had accumulated more than one-half larger capital and were making considerably larger labor incomes than those farmers with only district school education.

Relation to illiteracy. Illiteracy has its relation to this problem of prolonging the period for preparing children for the complexities of modern life. It is axiomatic that those who possess too low a degree of literacy are not qualified for successful citizenship in a democracy. The figures of the Federal Census were bad enough but draft figures during the World War awoke the country to the fact that census figures were an under statement on this problem. We have almost two million foreign born illiterates listed. We have over eight million foreign born who came from countries in which from 25 to 87 per cent of the population are illiterate.⁷ This group tends to settle in the cities. Their children join the ranks of young workers in large numbers. The illiteracy of the parents tends to make them unresponsive to any efforts to retain their children in school except the direct compulsion of law. The rural districts comprising 48.7 per cent of our population do not get so many of the foreign

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born, but they have nearly three million illiterates of their own. Whereas illiteracy in the cities is largely due to immigration, in the country it is largely due to the inadequacy of rural schools. That good schools and the retaining of children in school are an adequate remedy is provable. Those states whose school systems ranked high a generation ago, rank high today as regards percentage of literacy. The reverse is true for those states whose schools were poor a generation ago.^{7a} The five states that ranked highest in school efficiency in 1900 have an average percentage of literacy in native born population of 99.6. The five states lowest at that time have 94.2 per cent, which is thirteen times as bad. The circulation of the *Literary Digest*, because of the character of the magazine, may be taken as a rough measure of the efforts of the people of a state to keep themselves informed on current issues. The five states with the best schools in 1900 absorb a *Literary Digest* circulation of 2.11 per cent as against .66 per cent for the other states.

A summary of the relation between keeping children in good schools and getting results in money and fame is shown by the following tabulation which compares recent results between the five states which were maintaining the best school systems in 1900 and the five states maintaining the poorest school systems, as measured by Ayres investigation.^{7d}

	5 Best States	5 Poorest States
Percent of native white literate in 1920.....	99.6%	94.2%
Illiteracy in 10-20 year group, native born in 1920	0.28%	7.8%
Read the <i>Literary Digest</i> in 1922	2.11%	0.66%
Average score of white troops intelligence in 1918	73.3%	43.9%
Amount earned by each working person in 1920	\$994.20	\$516.46
Account in savings bank per person gainfully employed in 1921	\$378.39	\$ 46.44
Percent of child workers, 10-15 years 1920....	5.9%	22.2%

Obviously practically all illiterates in the ten to twenty-year age group will be out of school and in the young worker group. The 1920 census showed more than a half million native born illiterates between ten and fifteen years of age. They numbered 531,077 and constituted 2.6 per cent of all the children of this age group. They range from a few hundred in some states, as Iowa, Kansas, Rhode Island and Washington where they total, approximately one-fourth of one per cent of the ten to twenty year age group up to numbers ranging from twenty thousand to more than sixty thousand, and in percentage of the age group from 3.6% to 5.9%, 10.2% and 15.6% in some states, as Texas, North Carolina, Mississippi, and Florida.^{7b}

Not only is there need for prolonging the period of training to prepare for the complexities of modern life, but there is need for a thorough combing to provide elementary instruction for thousands of our children.

Conditions in schools. The elimination of academic illiteracy as a starting point is equaled in importance by the need of decreasing what may be called an economic and social illiteracy in the later part of the prolonged period of training. Those complexities and swift transitions which characterize our era force new responsibilities in this field upon the schools. The schools are making progress, but they always tend to lag behind the minimum needs of the situation both in the selection of instruction material and in the method of instruction. The course of events has been somewhat as follows:

1. In the earlier and simpler stages of society school instruction after the stage of grounding in fundamental reading, writing and arithmetic tended to emphasize abstractions as the material for further instruction.

2. As the increasing activities of society created new contacts an immense amount of fact material accumulated and the schools attempted to present it to the

pupils. As the mass of fact material grew the schools through teaching practice and by text-book presentation stressed the citing of countless facts to the pupils, and the reciting of those facts by the pupils. Memorizing rather than mental grasping was emphasized.

3. This method had a certain degree of effectiveness with those pupils who could respond to it, but the prolonging of the period of training retained in the schools in ever increasing numbers, pupils who could not or would not respond to it. In spite of notable reforms in the selection of instruction material, as illustrated by the better modern text-books, especially those in the field of social science, in changes in teaching methods as illustrated by the problem-project plan, in changes in school administration as illustrated by the creation of the junior high school, many of our schools have lagged and continue to lag behind the real needs of the situation.

4. Thus we have a group of prospective or potential young workers urged to remain in school through their own and their parents' desire to acquire some of the social prestige which continued education gives and to secure an adequate preparation for employment and for living. Up to the age of fourteen, fifteen, or sixteen years, according to varying state laws, they are compelled to stay. Yet they are dissatisfied with school. Some, as shown by mental intelligence tests, are actually unable to grasp instruction beyond a limited degree. Some permit their interest to react only to that instruction which appears to have vocational or utilitarian value. Practically all of this group feel strongly the lure of new experience held in the prospect of employment. So they leave school in great numbers when the desire for a change overcomes the urge to stay, or when they emerge from the compulsory age period.

5. The tendency of state legislation during the past

dozen years has been strongly towards prolonging the instruction period through raising the age and school grade of compulsory schooling. Each state, however, is confronted by two solutions of the problem. Shall they force the children to remain in school and by the situation thus created compel the schools in self defense to provide quickly the instruction adapted to the needs and capacity of these children, or shall they wait until the schools, anticipating the coming situation, make suitable preparation? Any comparison of selected states is open to serious error, because the manner in which exemptions are administered causes wide differences between the local situation as outlined in the law and the actual practice. Merely to cite those states which have a compulsory sixteen-year schooling law as against those where the limit is fourteen years gives little information. Ohio may be taken as an instance of the method of forcing the children to remain in school. With requirements of 14 years as the age minimum for employment, and 16 years or the completion of the eighth grade as the minimum for school attendance, the number of 10 to 15 year old workers in manufacturing and mechanical industries was reduced by 59.8% from approximately 12,000 to 5,000 in the decade from 1910 to 1920. Of the other type, Massachusetts law differs from Ohio law chiefly in allowing sixth grade instead of eighth grade release from school. The corresponding figures are an increase of 9.8% from 21,637 to 23,753. During the current year a committee of school officials is making an intensive survey of school and of working conditions in the state to determine whether the time has arrived for raising the age or grade requirement for full time school attendance. The contrasting of these two states not only gives type instances of the two methods of dealing with the situation, but also illustrates the important fact that raising the school grade requirement one or two units is much more effective in retaining chil-

dren in day school than raising the minimum age of release by one or two years.

6. No matter which method is used, a common difficulty remains. Leaders in education are generally agreed that teachers should be well grounded in two sciences, psychology and sociology. Many would add a third, economics. Methods and results in the training of teachers have not kept abreast of this need. Less than half, 46%, of the teachers in the United States are normal graduates. In four states, Alabama, Arkansas, Florida and Mississippi the number is less than 10%. In only seven states, Arizona, California, Connecticut, Massachusetts, New Jersey, New York, and Rhode Island is it 80% or more. In addition to being untrained, thousands of our teachers are lacking in both maturity and experience. Of the rural teachers of the United States, 36% have had less than two years teaching experience and 25% are less than twenty-one years of age.^{7c} Of the teachers who have had training it may safely be said that whereas most of them have had reasonably good preparation in psychology, very few of them have an adequate knowledge of economics and sociology. As to those who have even a slight knowledge or experience of actual working conditions, the number is very small. Finally, and with no direct or implied aspersion on the excellent teaching qualifications of women, this particular situation is rendered more acute by the great increase in the relative number of women teachers. In 1870 the percentage of teachers in the United States who were men was 38%; this increased to 43% in 1880, but by 1900 had decreased to 30%, and by 1920 to 14%.^{3a} After grateful acknowledgment that we owe a large proportion of our knowledge of actual working conditions of juvenile employees to able women investigators in settlement work, research agencies, and the guidance bureaus of the larger cities, the fact remains that the rank

and file of women teachers are not well informed in this field. The adolescent boy wavering in his decision to quit school and go to work all too often fails to get in his classroom instruction that relation of the subject matter of formal instruction to the subject matter of life experience which convinces him that it is worth while to stay in school beyond the period of compulsion.

7. It is unfortunate that to this charge of lack of training, experience, maturity and knowledge on the part of large numbers of teachers must be added the charge of lack of interest or sympathy toward the young worker group. Undoubtedly much of this can be traced to the fact that as each successive educational scheme for more effective instruction of the group was evolved, it developed as a special type of education, the responsibility for which was placed upon a special group of teachers who by the very nature of their work tended to be segregated from the general group of teachers. Thus the general group had little accurate information as to the instructional material and methods used. Under the general term of "vocational education" these special agencies were all too often regarded as a convenient dumping ground for undesirable pupils. This tradition, although waning, persists with considerable force to the present time. Its expression varies from the comparatively mild "You are not able to carry my work. You'd better transfer to the commercial section," to the remark of a high-school teacher to the principal of a continuation school,—“Oh yes, the continuation school—that's a kind of reform school, isn't it?"

Evidently the prolonging of the period of school instruction up to the point it has now reached, to say nothing of the probability of future extension, injects into the situation a teacher-training problem designed to remedy this state of affairs. The effect of the movement on general education is beyond the scope of this discus-

sion. The enrichment and revision of elementary and high school curricula, the remarkable development of the junior high school, notable changes in the teaching of the social studies, emphasis on extra-curricular activities, consolidation of rural schools, readjustment of the salary schedules and tenure of teachers, more rigid enforcement of attendance, and a wonderful awakening on the part of teachers in the pursuit of professional improvement courses, have all had their beneficial effect in training children for the more complex life which confronts them. During the time when the young worker group is merged in the total group of school children, they profit by these activities. At the point, however, where they emerge from the general group, they find special educational opportunities which have developed to meet their particular needs, and which therefore lie within the field of this discussion.

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CHAPTER VII

THE DEVELOPMENT OF SPECIAL EDUCATION FOR YOUNG WORKERS

Manual Training. The first notable attempt within the day schools to give special training for the children who were going into industry was the introduction of manual training.¹ The idea originated in Finland and came to this country by way of Russia. Its application to the American education system started at the top with the introduction of tool instruction in Massachusetts Institute of Technology in 1877 and the starting of a manual training school in St. Louis by Professor Woodward. Its spread was rapid, so that by 1913 public high schools enrolled over 50,000 manual training students, manual training high schools had as many, and another group of the same size was enrolled in manual and industrial training high schools. This brought the total to 154,298 pupils.

In some places it was taught as part of the general curriculum of the high schools which all students must study. That hostility and indifference of other teachers toward successive types of vocational education which has been mentioned, made this system very difficult of administration. Another plan was to teach it as a separate course of study in the general high school, parallel to the college preparatory, the English and the commercial courses. A third plan was to establish independent high schools devoted to manual training alone. Cultural studies also were given but they were subordinated.

The reasons for this segregation are important because they apply to every other type of vocational education. The traditions of the general school were antagonistic to the new idea; a longer school day was required of the manual training student than of the so-called regular student. This caused dissatisfaction as long as the students mingled, but tended to disappear when the work was given under conditions where all students were subject to the same requirement. A third reason was the concentration of interest on the part of the pupil and of responsibility and special training on the part of the administration.

In the early days the advocates of manual training sought to justify it as an extension of purely cultural education. Later they argued that it had a vocational purpose. It has not proved to be an effective means of industrial education. The chief reason for this is that the mass of children who go into industry drop out of school long before they reach the high school. The point of maximum enrollment in day schools is 93.9% of the school population and occurs in the eleven year old group. The drop is only a fraction of a per cent through the thirteenth year, then it is successively 62%, 13.9%, 22.1% and 16.2%. At 16 years just half, 50.8% of the children are in school.² Another reason for failure was the type of teacher employed. Most of these lacked specific trade training or industrial experience. The few who did enter from the trades soon lost contact with the rapidly changing trade processes. Manual training rested rather heavily on the idea of formal discipline, that experience and practice in one type of work were largely transferable to another type of work. The fact that this transfer does not occur was speedily detected by educators, employers, and labor leaders, with the result that the three groups have lost faith in manual training as a form of real industrial education. As a result of all these experi-

ences the tendency during recent years has been to get manual training into the grades, as low as the sixth grade, or into the junior high school. In increasing numbers the instructors have been recruited from the trades and the objectives of the work have changed from a combination of cultural aims and vocational training aims to that of exposing the pupil to a succession of practical experiences which will help him to find himself vocationally. Under the name of provocational classes this system now serves a very useful purpose as a guidance agency for prospective young workers. Many remnants of the former practices still exist, however, especially in the smaller cities.

Trade schools. The first all-day schools for trade instruction were established through private benevolence. A list of the most notable of these early philanthropic schools includes,—

The New York Trade School, founded in 1881.

Williamson Free School of Mechanical Trades, Delaware County, Pa., 1888.

Wilmerding School of Industrial Arts, San Francisco, 1894.

National Trade Schools, (Now the public Arsenal School) Indianapolis, 1904.

Carnegie Technical Schools, Pittsburgh, 1900.

David Rankin, Jr., School of Mechanic Trades, St. Louis, 1907.

Closely related to this type are the trade school divisions of Hampton Institute (1868) and of Tuskegee Institute (1881).

About 1906 the trade school as part of the public school system began. Philadelphia in this year established a public day trade school to be supported entirely from the public funds. At practically the same time Milwaukee took over the support of the newly estab-

lished Milwaukee School of Trades. The Worcester Boys' Trade School was established in 1908 and opened in 1910. Similar city schools were started at Columbus, Ohio, and at Buffalo in 1909, and state trade schools at Bridgeport and New Britain in Connecticut. The Yonkers Trade School was established in 1910 and the Portland, Oregon, school at about the same time.

Because of difficulties in classifying trade schools under that name, it is practically impossible to get accurate figures as to the extent of their enrollment. A report of the Bureau of Education in 1910 on schools providing trade instruction stated that public trade and industrial schools enrolled 14,751 pupils, of whom 3,097 were girls; the philanthropic schools enrolled 10,694, of whom 3,556 were girls. In addition corporation schools, chiefly among the railroads, devoted to apprentice training, enrolled about 5,000. This made a total of more than 30,000.³ Just as in the previous period manual training was hailed as the solution of the industrial training problem, so between 1900 and 1910 were the public trade schools. They were equipped with expensive machinery, the instructors were usually competent trade-trained persons, the courses of study and detail of shop work were wisely planned. Two serious difficulties were encountered. First, the schools could not retain their pupils. Less than 40% of those entering finished the full term. During periods of industrial depression the schools were filled, but as soon as industrial activity created a call for workers and the pupils realized that they could qualify for jobs, they dropped out. Second, initial outlay for equipment and high maintenance costs have made the schools very expensive. There are other difficulties. The school cannot reproduce actual shop conditions; it is difficult to turn out articles which are destined for a useful commercial purpose and at the same time throw the emphasis on instruction rather than on production.

The elimination of waste cannot be conducted on the standard of commercial shops. Only a few of the basic and less massive shop processes can be carried on in a school. Even with these, equipment cannot be modified or discarded as in commercial shops, with the result that equipment tends to lag behind at times. Most authorities agree that while the all-day trade school serves a useful purpose, future development in this field is likely to be small.

Technical High Schools. The technical high school is a survival of the manual training high school. Some, like the Cass Technical High School of Detroit or the Lane Technical High School of Chicago, in many respects can hardly be distinguished from trade schools in many of their shop courses. In general, however, these schools do not aim to turn out skilled mechanics. Many of their pupils are preparing for entrance to engineering schools, others find an interesting combination of vocational and cultural studies which gives them a good general training, and many are looking forward to work as foremen and subordinate superintendents. These schools aim to train the non-commissioned officers of industry rather than the rank and file. They encounter much the same difficulties as the trade schools with about the same prospects for future expansion.

Commercial education. Commercial education within the public schools was introduced slowly chiefly since 1900. There are a few segregated commercial high schools in the largest cities, but the work is usually carried on as a commercial course within the general high school. These schools, or courses, have been remarkably slow in adapting their instruction to the real needs of young commercial workers. They have clung to stereotyped instruction in bookkeeping, stenography, and typing, with no apparent realization that their pupils were dropping out without completing the course, and

with little preparation for the positions awaiting them as junior clerical workers. Within the past five years considerable revision of courses has been made by the more alert teachers. These have been in the development of instruction for junior clerical workers for the kind of positions filled by sixteen-year old employees, and in the development of cooperative courses in which pupils in the junior and senior class of high school spend a part of their time, either afternoons, or alternate weeks, in store work, usually in department stores. The present situation is that the best pupils of those who complete the full commercial course, junior course, or cooperative course, obtain positions for which they are reasonably well trained. The others either supplement the school training by an intensive course in a business college, or drift into other lines of work.

Agricultural education. Vocational instruction in agriculture below college grade began in 1888 when Minnesota established the first successful secondary school of agriculture in connection with the State Agricultural College. With the spread of scientific farming the need for instruction has increased. More than half the states have organized schools in connection with their agricultural colleges; about twelve states have established county or district agricultural schools; and a large number of high schools have established vocational agricultural courses. The work has varied from elementary text-book study covering a few months to a four-year course, with practical work either on school land or on a home project.⁴

Vocational training for girls. Changes in the economic status of girls have thrown new burdens on the schools. One result of the passing of domestic manufacture and the subdivision of labor was to take out of the hands of women many of their historic tasks. As the manufacture of cloth, the making of clothing, baking and laundry

work were taken over by the factory, much of the home instruction of girls disappeared. At the same time employment in very highly subdivided factory work was opened to them.

The schools have never attained any marked success in training girls for trades. Various phases of millinery, tailoring, and power machine operation usually mark the limits of attempts made. This type of instruction is rarely given outside girls' trade schools. Representative schools of this kind are Manhattan Trade School for Girls, New York; Girls' Trade School, Boston; and similar schools in Milwaukee, Chicago, and other large cities. The usual jobs open to girls in candy factory, shoe factory, textile mill or assembly department, require training which can be given in a few hours or a few days more effectively in the plant than in the school. The industrial life of most of the girls is very short, from three to six years, because they marry and start homes of their own. Therefore, even in the trade schools, much of the emphasis is on home economics education.

In the high schools and elementary schools where most of the girls attend, home economics work is widespread. This instruction covers the entire field of the application of scientific knowledge to home making. The beginning dates back to the manual training era, when sewing was first given in the public schools of Boston in 1876 and cooking in 1885. Instruction in these studies spread rapidly, even to very small towns. Much of the instruction is still given on a laboratory basis, but recently many schools have introduced household equipment. The courses include budget making, marketing, meal planning, home nursing, care of children, house furnishing and decoration, and all phases of home making.

Present extent of day school vocational training. Any estimate of the number of pupils receiving vocational instruction in all-day schools depends on the definition

of what constitutes vocational instruction. Excluding manual training, general home economics, and general technical high school, and confining the estimate to standards set by the Federal Board for Vocational Education, we get such a definition. The standards are—the controlling purpose is to fit for useful employment; instruction is of less than college grade; instruction is designed to meet the needs of persons more than fourteen years of age who have entered on or are about to enter on a vocation; at least fifty per cent of the time is devoted to practical work.

The Federal Board report to Congress for 1924 reported 65,358 all-day pupils in federally aided agricultural schools, 33,262 in trade or industrial schools, and 36,253 in home economics. The total was 134,873. (Table V). In addition (Table VI), there are at least 13,526 in schools not federally aided.

Cooperative schools. The cooperative school is one in which the pupils work part of the time on regular jobs in commerce or industry and spend the rest of the time in school. The period of alternation of school and employment may be part of a day or week, one week, two weeks, or a longer period. The usual practice in high schools is the alternate week. The essential difference between cooperative education and other types of part-time education like evening or continuation schools rests on two points; (1) the status of the pupil is that of a regularly enrolled student who supplements his school work by employment; (2) there is a formal arrangement with the employer through which the employment opportunity is granted to the pupil. In the other forms of part-time education the status of the pupil is reversed. He is a worker who supplements employment experience by attending school either on a voluntary basis, usually in evening school, or on a compulsory basis, usually in continuation school or in one of the recently developed

apprentice classes. The cooperation of the employer under these circumstances may be entirely lacking, voluntary, or, in the case of the apprentice classes, formally arranged.

Cooperative classes in the United States originated in the University of Cincinnati, where Professor Herman Schneider introduced the idea in 1905 and conducted the first course in 1906-7.⁵ The plan was first tried with students in the engineering course. It is now in operation in eleven higher institutions. The enrolled students in 1922 numbered at least 2,500.

The first of the secondary schools to institute cooperative work was the Fitchburg, Mass., Industrial School, in 1908. By 1922 the movement had been taken up by twenty-two cities and the total enrollment was at least 3,000.

The cooperative plan avoids many of the difficulties encountered in trade and technical schools. Since the employment experience is gained in commercial plants, the school avoids the expenses of equipment, maintenance, and up to date replacement. Industries involving massive operations, like iron and steel, or highly subdivided operations, like shoe manufacture, can be included. The school emphasizes the technical studies needed to supplement the employment experience and depends on the plant to train in vocational skill. The danger of over supplying one type of worker is reduced to a minimum through close contact with actual employment conditions maintained by a coordinating teacher. There are some difficulties owing to the ebb and flow of business which often make it impossible to retain pupils in employment, but on the whole these are no greater than the difficulties involved in running school shops on the basis of turning out a commercial product. Since its inception the cooperative plan under full control of public school officials has generally been regarded

with favor by educators, employers, and labor unions, as offering a very satisfactory method for training young workers before launching them into full-time employment.

Up to this point the brief descriptions of the development of various types of special education for young workers have dealt with those offered to children whose essential status is that of a pupil rather than of a juvenile employee. From here on, the descriptions deal with those who have left school. They may take a brief full-time course in a privately conducted business school, or under legal or employment compulsion, enroll in a continuation school or an apprentice class, but their status is no longer that of school children.

Commercial trade schools. The demand of young workers for post-school training brought commercial schools into existence at an early date. Among the first of these were the "business schools" established in all large cities of the United States between 1830 and 1860. There are now more than 2,000 of these schools in the United States. Some are reputable schools, but many of them provide inferior or worthless training.^{4a} On the basis of statistics from 902 private commercial and business schools reporting in 1920, there were 103,388 pupils in average attendance in day schools and 61,274 in night schools, the total enrollment for day and night schools was 336,032. The courses offered were commercial, stenographic, combined course, telegraphic (wire and wireless), accountancy, secretarial and salesmanship.⁶ Some measure of the extent of the private commercial school is indicated by the fact that the amount paid annually for private school business training in a single type city, Philadelphia, in 1920 was estimated at about \$550,000. For every pupil enrolled in a high school commercial department there was another pupil enrolled in a private commercial school.⁷

The commercially conducted trade schools in the United States number about the same as the business schools.⁸ No accurate estimate of their total enrollment can be given. If the figures given by Douglas for Minneapolis in 1916 can be taken as typical, the total enrollment in the United States would be well up toward 100,000.^{1a} At that time Minneapolis had 14 such schools with an annual enrollment of 2,000. The trades taught included telegraphy, tractor operating, barbering, "beauty culture", dressmaking and sewing. The total income of 12 of these schools was over \$84,000 per year. The tuition fees ranged from \$20 to \$100 and averaged about \$50.

Some of these schools are good. Many of them are very poor. The very fact of their continued existence shows that, however ineffectively, they are catering to a need which is not otherwise being met.

Full time training in industry. Apprentice schools have been maintained by old established firms for a long time. The Brown and Sharpe Manufacturing Company of Providence initiated their school in 1853; R. Hoe and Company of New York in 1858; the Scovill Manufacturing Company of Waterbury in 1802. In the list of 13 industrial and railway apprentice schools described by Dr. Jennie M. Turner^{5a} seven were established before 1900. The dates of origin of the others are distributed fairly evenly through the subsequent years.

Complete figures on enrollment can not be obtained. The enrollment from those firms that reported in 1913 was 3,302; in 1922 it was 3,394. Certainly the number receiving definitely planned instruction in corporation schools is small compared with the total number of listed apprentices. The 1920 census showed 139,851 apprentices in the manufacturing and mechanical industries alone.

In general these schools do not enroll boys under six-

teen years of age. Most of them set aside a definite number of hours per week, from two or three hours up to half time for instruction in classroom subjects. There is a definite assignment of shop work and class work which is pursued usually for two, three, or four years. Instructors are selected from the shop or executive force upon whom is placed a definite responsibility for training. Subject matter tends to be restricted to the drawing, science, and mathematics necessary for an understanding of the work. Commonly this is supplemented by some instruction in English and occasionally by some work in history or economics. The schools differ so much from one another that they can hardly be classified.

*Part-time training in evening schools.*⁸ Evening schools were the first in point of time, as they are to-day the first in number of pupils enrolled, in offering opportunities for post-school education. Private evening schools charging tuition for instruction were conducted at Flatbush in 1681, in Boston in 1724, and in New York in 1730. By 1750 such schools were not uncommon. In Dorchester a school for apprentices in the paper mills and "other studiously inclined boys" was kept by Samuel Crane from 1790 to 1797. In Germantown in 1702 the learned Pastorius kept an evening school "for such as could not attend the day school."

The next step was the founding of free evening schools by benevolent societies. At first these were for slaves and other negroes, but soon schools for whites were conducted. One of the schools for negroes started on Staten Island in 1715. In Salem in 1774 a school was conducted under charge of the selectmen and paid for out of public money. This, however, could hardly be called a free public evening school, as it was intended for 12 poor boys. In 1816 Sunday schools were established in Boston and gave some instruction to poor boys and girls in reading and writing. Although not evening schools, these

helped to call attention to the need for instruction for boys and girls at work. Objections to the giving of secular instruction on Sunday helped to pave the way for evening schools later.

Small items of public money were contributed toward the support of evening schools. In Boston for a time the city gave half the proceeds of the hay scales to these schools, and in Cambridge the school committee assumed the expense of warming the rooms. The Massachusetts legislature in 1847 granted permission to cities and towns to appropriate money for the support of schools for the instruction of adults in reading, writing, English grammar, arithmetic, and geography. Several cities appropriated money for this purpose. Opposition developed as to the legality of such appropriations, but the matter was settled in 1857 when the legislature authorized the payment of money for the maintenance of evening schools. The list of studies just named indicates the cultural offerings in the early evening schools. The special needs of young workers were not neglected. Thus the Moravian School at Lititz in 1759 provided that boys who were employed during the day be taught "some useful knowledge." The Public School Society of New York in 1833 opened four schools for apprentices and others; in Louisville in 1834 an evening school was opened in which the majority of the pupils were 22 apprentices. The Ohio legislature in 1839 made a compulsory law for the directors in an incorporated town, city or borough "to provide a suitable number of evening schools for the instruction of such male youth over 12 years of age as are prevented by their daily avocation from attending day schools." By 1862 Cincinnati, San Francisco, St. Louis, Chicago, New Orleans, and other cities to the number of at least fifteen had conducted free public evening schools. Thirty-two cities reported evening schools in 1881 and the Bureau of Education report for 1887-88

showed a total enrollment in cities of 8000 or more of 135,654. The enrollment for 1921-22 was 842,863.

The first evening schools were devoted to elementary instruction but at a surprisingly early date evening high schools were established and offered advanced general education subjects and specific vocational subjects. Cincinnati established the first free evening high school in 1856. Previous to this time the Ohio Mechanics' Institute in 1828 had opened evening classes to apprentices and minors, sons of members, at an annual fee of fifty cents. Lectures and classes were conducted in botany, chemistry, mechanics, geometry and arithmetic. Later, about 1841, Woodward College and High School organized classes for young men who were at work during the day. No charge was required from them, but others paid tuition fees. The instruction was in "mercantile arithmetic, bookkeeping, algebra, geometry—mensuration of planes and solids,—particularly of carpenters', painters' and bricklayers' work, etc." Undoubtedly the experience with these semi-private schools influenced the early establishment of the Cincinnati public evening high school.

New York City established an evening high school in 1866, many years before the first day high school was established. It offered an extensive curriculum of regular high school subjects in mathematics, science, English, and modern languages. In 1877 the number examined for admission was about 3500 of whom about 1800 passed.

Vocational studies were emphasized in the O'Fallon Polytechnic Institute at St. Louis in 1868 and the Artisan's Night School of Philadelphia in 1869 which later was called the Evening High School. Later the technical courses were not deemed so important as the traditional high school subjects. This was probably due to the fact that most of the teachers were day high school teachers.

Probably a stronger reason was that equipment for vocational work was lacking. Although the Massachusetts

law of 1872 gave permission to any city or town to establish and support evening industrial schools, no such school was established until 1898. Then the completion of the new Mechanics Arts High School in Springfield gave opportunity to use the equipment in the evening, and the Springfield Evening School of Trades was established. Since that time similar instances have multiplied and evening trade schools or evening vocational classes are now found in most cities.

Part-time training in continuation schools. When Dr. Jones wrote his monograph *The Continuation School in the United States* which was issued as a U. S. Bureau of Education bulletin in 1907 there was not one school in the United States of the type now called continuation schools. In 1909 Cincinnati, influenced by the success of Dean Schneider's experiment with cooperative engineering classes, established the Cooperative Continuation School. This was a school for apprentices 16 years of age or older in metal trades. School attendance amounting to four hours each week was not compulsory although it was usually made a condition of employment virtually amounting to compulsion.

In 1909 the School Committee of Boston took action leading to the establishment of continuation schools. Early in 1910 classes were organized for young workers in the shoe and leather industry, the dry goods industry and department stores. These classes were in session four hours a week. Attendance was purely voluntary. Later classes in banking were added, then in English for non-English speaking people, household arts, and conversational Spanish, Italian, and French. The enrollment grew from 172 in 1909-10 to 1313 in 1913-14, when the local compulsory law became effective.

Meanwhile the 1906 report of the Massachusetts Commission on Industrial and Technical Education was arousing wide spread interest. A large part of this report was

devoted to the condition of 14-16 year old workers. The Commission found that only one-sixth of these children had graduated from grammar schools, one half had not passed beyond the seventh grade, and one quarter had less than six years of schooling. The fatigue of the day's work made evening school instruction of little value even to the small number who enrolled in evening schools. One-third of the children who had gone to work before the age of sixteen were employed in unskilled industries, practically two-thirds were in low-grade industries. Only 2 per cent were in high-grade industries. Neither power nor advantage was gained by entering the industry at an early age. The child who did enter closed behind him the door to progress to a fair living wage.

The findings of this Commission have been reinforced again and again by subsequent investigations. As attention was directed to these conditions a nation-wide movement to remedy them was started. Wisconsin was the first state to pass a law requiring all employed workers between 14 and 16 years of age to attend school four hours a week. This was the result of the report of a commission appointed in 1909, and the law was enacted in 1911. In addition the training of all apprentices was placed under the supervision of the state industrial commission and apprentices were required to attend the newly established part-time schools five hours a week. Massachusetts and New York in 1913 enacted laws requiring the attendance at continuation school of all 14-16 year old workers in those cities where the local school board established continuation schools. This was the "permissive-mandatory" type of law which has always failed because local school boards do not establish the schools. Boston which had already maintained voluntary classes since 1910 was the only city in Massachusetts which took advantage of the law. There a compulsory continuation school was opened in September 1914. After the Boston experience

proved the worth of the school, a state law was enacted in 1919 making the establishment and maintenance of continuation schools compulsory in every town where employment certificates had been issued to 200 or more 14-16 year old workers during the previous year.

The New York State experience ⁹ under a permissive mandatory law was similar to that of Massachusetts. New York City alone took advantage of the legislation but not until five years elapsed. By this time a law passed in 1910 compelling all boys between 14 and 16 to attend an evening school for at least six hours each week for sixteen weeks had proved to be unenforceable. In 1918 New York City established at Hester and Chrystie Streets what later became the East Side Continuation School. In 1919 the legislature passed a compulsory state-wide law requiring all communities of 5000 or more population to establish and maintain continuation schools and to require the attendance for not less than four hours nor more than six hours each week of all boys and girls between 14 and 18 years of age who had not completed a four-year high school course.

Pennsylvania followed Wisconsin's example by starting with a compulsory continuation school law, and was thus the second state to establish these schools on a state-wide basis. This was part of the Cox Child Labor Law of 1915. Every school district in which 20 or more 14 to 16 year old children were employed was required to establish a continuation school where these children could attend eight hours each week. The law was vigorously enforced from the beginning with the result that each year about one hundred communities maintain these schools and enroll about 40,000 pupils.

After the passage of the Federal Act of 1917, the Smith-Hughes Law, granted federal aid to continuation schools, legislation was enacted quickly by many states. The annual report of the Federal Board for Vocational Educa-

tion for 1920 showed an enrollment of 98,082 pupils in general continuation schools in 17 states. The 1924 report showed an enrollment of 256,133 pupils in 34 states. The total expenditure of local state, and federal money for general continuation schools increased from \$347,399.89 in 1918 to \$3,493,353.27 in 1924. The phenomenal growth of this type of school in a period of little more than ten years not only makes it one of the outstanding features in the development of our American educational system, but also makes it one of the largest and most important factors in the education of young workers.

Part-time training in philanthropic schools. The chief philanthropic agencies which have developed special educational opportunities for young workers are the Young Men's and Young Women's Christian Associations, the corresponding Hebrew Associations, and the Knights of Columbus. Since only a part of their work is educational and the groups they reach are mostly in the 22 to 30 year age period, only a brief sketch of their activities is given here. In the Y. M. C. A., educational classes received little attention until the conventions of 1887 to 1891. In 1891 these classes enrolled between 10,000 and 12,000 students; in 1900 there were 26,906; in 1920-22 the average number of students was 120,205. Almost half the studies given are in the commercial field; industrial academic and social-civic studies are, respectively, 17%, 14%, and 13.5%; and professional subjects are 6.7%.

The Young Women's Christian Association maintains schools in about 40 of the largest cities. The Ballard School of New York is the oldest, having been founded about fifty years ago. In 1921 it conducted 262 day and evening classes enrolling 3,577 students in 46 different subjects. In these schools courses are given in various phases of home economics, English, citizenship, art, basketry, modern languages, and a variety of other subjects. At present the educational work is so closely identified

with the social work and broad general aims of the association that it can hardly be classified.

The Young Men's and Young Women's Hebrew Associations do not stress educational work to any extent. In what they do give they do not differ materially from the Christian Associations.

The Knights of Columbus did not establish schools until after the World War. At that time they had a considerable sum of money unexpended which they devoted to free classes for former service men of about the same type as those in the Y. M. C. A. Later schools not limited to service men were opened. The enrollment in the first type of schools reached 67,196 for the year 1921-22, and for the second type 22,735. The latest reports are that they have disbursed most of the accumulated funds and in the future will carry on only correspondence courses.

Part-time training in correspondence schools. Correspondence schools like the philanthropic schools enroll most of their students from an older group than the young workers. They are of two types, public and private. The public schools are usually attached to a university. The correspondence schools attached to the Chautauqua Assembly were not financially successful and were dropped in 1900. Records of the University of Chicago correspondence courses go back to 1892. Wisconsin University was also a pioneer in this field. One of the more recent developments has been the establishment of such courses under the Massachusetts Board of Education. About twenty years ago there was a tendency for universities to drop their work, but since that time it has revived and is now widely established.

Private correspondence schools are of comparatively recent growth. The International Correspondence School of Scranton, one of the oldest, was founded in 1891. Whereas the public correspondence schools have more cultural than vocational courses, the private schools empha-

size the vocational. Most of their students are apprentices and mechanics. The need and desire of the students for further education is proved by the fact that these schools enroll about a million persons a year and collect about seventy million dollars in fees. Some of the schools are honest. Many of them are fraudulent. Even among the best of them energy and funds are devoted to selling the courses in far greater degree than in really instructing the students. The percentage of students who fail to complete courses is at least 90% and probably is nearer to 97%. The widespread activity of the private correspondence schools to-day is a challenge to educational institutions to meet a need and demand for post-school education which the correspondence schools have discovered and which they do not satisfy.

The National Society for Vocational Education. A review of the development of the various types of special education which have been mentioned shows that activity in this field became marked in the period just after 1900. A strong factor in this development was the National Society for Vocational Education. Organized in 1906 as the National Society for the Promotion of Industrial Education, it enrolled a powerful body of men and women who were informed and who were worried about the condition of young workers. Labor leaders, employers, and educators, especially those educators who were engaged in state or city vocational education, united to get information, spread the information, and stir up some action to bring the schools up to a greater degree of efficiency in providing special training in full time and part time classes. The annual conventions of the Association served as a clearing house of experience and the published reports embodied growing experience in usable form.

The Association was directly responsible for some, and through individual members, indirectly responsible for others, of the series of notable city surveys produced be-

tween 1910 and 1917, such as those of Richmond, Minneapolis, and Indianapolis. These surveys drew a detailed picture of the young workers. They analyzed educational institutions both public and private and disclosed their adequacy or inadequacy. They analyzed specific industries and showed what training was needed. Growing experience showed that the cost of providing better training for prospective and existing young workers was a serious item and that it must be drawn from sources beyond the local community. Just as one of the strongest reasons which deterred employers from training apprentices was that as soon as the apprentices were trained they would go to another employer so the same argument was used as between one community and another, in providing vocational training. The result was a successful appeal to Congress which brought about the passage of the Smith-Hughes Bill in 1917. The various types of social education which had developed up to this time received such a stimulus from the federal and state funds thus made available that since that time the National Society has devoted its energies to acting as a clearing house for rapidly accumulating experience.

The Smith-Hughes Bill. The Federal Vocational Education Act is usually known as the Smith-Hughes Bill. It provided for the creation of a Federal Board for Vocational Education which should determine standards as a basis for the distribution of the federal funds made available. These funds amounting to \$1,655,586.72 for the year ending June 1918 increase each year to a maximum of \$7,154,901.50 for the year ending June 1926 and thereafter. They are annually distributed to the states on the basis of approximately one million dollars for teacher training, three millions for education in trade and industry including home economics and general continuation schools, and three millions for education in agriculture. The requirement that each dollar of federal funds

must be matched by at least a dollar of state and local funds has been met by the states to the extent—that their contribution has never been less than \$2.17; in 1924 it was \$2.90.

The standards set by the Federal Board are as follows:

(a) Provisions applying to schools and classes offering vocational education:

(1) The controlling purpose must be to fit for useful employment.

(2) Instruction must be of less than college grade.

(3) Training must be designed to meet the needs of persons over 14 years of age who have entered on or are about to enter on a vocation.

(4) Teachers must be qualified under standards set up by the State board for vocational education and approved by the Federal Board for Vocational Education.

(b) Types of schools and classes organized under the act:

(1) Day or full-time schools in agriculture, home economics, and trade and industry for unemployed young persons over 14 years of age. Interest centers on specific vocations, and science and art and other subjects pursued are related to and reinforce the special vocational lines.

(2) Part-time schools in agriculture, home economics, and trade and industry for employed young persons over 14 years of age. Instruction must be given during the working day and must continue for not less than 144 hours during the whole year.

(a) Part-time extension, to increase the efficiency of the worker in a vocation already undertaken.

(b) Part-time preparatory, to prepare young workers for a vocation other than that in which they are employed.

(c) General continuation, to increase the civic and vocational intelligence of the worker. This is the only type of part-time school in which general academic subjects

may be taught, and is designed for the younger groups with limited general education.

(3) Evening schools, designed for the adult workers who wish to supplement their skill and information in their vocation by short unit courses. In a few States without compulsory part-time legislation, attendance on evening schools for young workers from 14 to 16 years of age has been compulsory. This requirement is disappearing with compulsory part-time laws.

Guidance Agencies. Whether the age of required all-day school attendance is 14, 16, or 18 years, and whether the instruction includes only academic work or a combination of academic and vocational, there is always a gap between the comparatively sheltered experience of the child in day school and the more turbulent experience of the child launched into employment. The guidance movement developed as an agency for bridging this gap. Vocational guidance is the term commonly used, but just as the foundations of a safe bridge must be anchored far back, so must the beginnings of vocational guidance extend back in the educational scheme, where they may be labeled educational guidance, civic, moral, or ethical guidance.

The beginning of definite organization in this field is usually credited to Professor Frank Parsons who had been interested in helping young immigrants to find themselves vocationally. In 1908 he was placed at the head of a vocational bureau organized in Boston. In 1909 this bureau was reorganized under the direction of Dr. Meyer Bloomfield and developed a comprehensive plan to help the school children and others in Boston to make wise choice of vocations. In 1917 the bureau was taken over by Harvard University and is now a division of the Graduate School of Education. Meantime those phases of the work which applied to the city of Boston were taken over by the public school system.

At practically the same time, 1908, the High School Teachers' Association of New York City began to make a survey of occupations and to hold conferences with graduating pupils. This has developed into two helpful agencies, the Junior Employment Service and the Vocational Service for Juniors. Chicago began similar work in 1910, Cincinnati in 1911, and other cities later.

In many cities these agencies had first been developed by a philanthropic body and later were taken over in whole or in part by the public schools. Among the leading cities in which departments of vocational guidance or placement are being thus directed and financed by the public school systems are Atlanta, Boston, Chicago, Cincinnati, Minneapolis, Oakland, Philadelphia, Pittsburgh, Providence and Seattle. Since their work should begin far down in the grades and should follow young people out into employment until they reach the age of at least 18 years, or even 21, the amount of money available falls short of the practically unlimited demand which could be made for extensions of the work. There is a general tendency, undoubtedly wise, to provide preventive measures within the schools rather than to concentrate on salvage operations after children have left school. This is accentuated by the fact that children can be reached easily and effectively while they are in school, whereas a tremendous amount of individual work is necessary to follow them after they leave school. In consequence the use of the guidance agencies by young workers depends very largely on the voluntary action of the young people. Those with definite ambitions and better intelligence are the ones who are most likely to do this, so that the guidance agencies are constantly struggling against the situation that those who have more need for help are less likely to seek it.

The more important divisions of the work are, counseling with the pupil in school, making surveys of occupa-

tions and preparing the material for study in classroom, advising the pupil in the choice of studies, placement in the first job, and following the young worker so as to provide guidance as needed in seeking further education or change of employment.

In actual practice guidance engages two bodies of workers, first, the specialists who prepare material and look after placement and follow-up work, second, the entire body of teachers whose cooperation is enlisted so that guidance may permeate every phase of school work. At present a large amount of scientifically prepared material and scientifically analyzed experience has been accumulated. Courses in guidance are among the most popular and most largely attended classes in teacher training institutions. Plans have been worked out for application from the largest city school system to the small local school. A National Vocational Guidance Association has been organized. Through regional and national conventions and publications, it acts as a clearing house of experience.

The range of activity is so great, from the highly organized systems of the large cities to the informal experiments in single school systems, that it is impossible to give any accurate estimate of the number of teachers or pupils involved. The guidance movement is one of the most extensive and most significant in American education today. The entire junior high school movement in the day schools and the entire part-time school movement for those who have gone to work are so closely related to the guidance movement that fine distinctions between them are neither possible nor worth while.

Perhaps the most valuable product of the guidance movement is its extensive enlistment of the interest and cooperation of such large numbers of "regular" teachers. The indifference or hostility of this group have checked the development of special opportunities for young

workers since the beginning of the manual training era. The spread of guidance is breaking down the barriers which have existed in the past between those who emphasized the teaching of subject matter and those who emphasized the teaching of children. Those barriers arose inevitably when we took over an educational system designed for a leisure class and tried to apply it to a democratic school system. As they disappear we shall more and more translate into terms of actual accomplishment the slogan "Education for all the children of all the people."

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CHAPTER VIII

THE PRESENT SITUATION

State Regulation. Any presentation of the present situation regarding employment and schooling regulations should begin with a warning that only relative accuracy can be assured. There are so many exemptions and provisional restrictions that the conditions under what seems to be a rigid restriction in one state may be worse than in another state where the legal restriction is not so severe, but the enforcement of the restriction is much more general. This situation is further complicated by the fact that restrictions on employment of minors rarely apply to agriculture and domestic service in which just two-thirds of the workers 10 to 15 years of age reported by the 1920 census were engaged. Thus an agricultural state with a fifteen year age limit on school attendance may have worse conditions than a manufacturing state with a fourteen year age limit and a compulsory continuation school law for 14-16 year old children employed in stores and factories.¹

All the states except two set at least 14 years as the minimum age for full time employment in stores and factories and these two states fix that minimum indirectly by compulsory school laws. Seven states set it at 15 or over. Work in mines and quarries below the age of 16 is prohibited in twenty five states, and in mines by seven others. In only six states is there no provision. The others draw the line at 14 years. Occupations dangerous

to life or limb or injurious to health or morals are directly prohibited in practically every state.

Compulsory attendance at an all day school is required up to the age of eighteen years in eight states; seventeen years in five; sixteen years in twenty-eight; fifteen years in one; and up to fourteen years in six and the District of Columbia. Thus no state has a minimum under 14 years.

Without exception, however, every state has an exemption clause such as "14 years and completed eighth grade," or "completed elementary school course" which makes it possible for any except retarded children to go to work at about 14 years of age. Repeatedly one comes back to the fact that the actually controlling factor is school grade completed rather than age. All states control child labor but, as regards results, the only states which really restrict it above 14 years are those in which the eighth grade is the minimum requirement for day-school attendance.

The effect of exemptions may be illustrated by the case of a single state. The law requires the attendance of all children 7 to 16 years old, but a pupil may be exempted if:—physically or mentally incapacitated; living beyond a certain distance from school; parent is unable to provide books; he has completed the 8th grade; poverty exists; any unusual cause exists acceptable to attendance officer; under instruction by parent or guardian.

The requirements for continuation school attendance in the several states are shown in Table I in the Appendix.

The most significant requirement is the school grade which must be completed before an employment certificate will be granted. The requirements of the several states are given below.

Compulsory school attendance provisions which in effect may raise these requirements for many children in certain States are not included. Grade of school work

required only is given, without regard to such additional requirements as ability to read and write English.

(a) Completion of seventh or eighth grade of "common," or "grammar" school course (see also under b, c, d, and e): Eleven States—California, Delaware (in Wilmington, by ruling of board of education law; with exemptions), Indiana, Kansas, Minnesota, Montana, North Dakota (school attendance for 9 years, exclusive of kindergarten accepted as substitute), Ohio, Oregon (ruling of industrial welfare commission), Vermont, Wisconsin (school attendance for 9 years, exclusive of kindergarten, accepted as substitute).

(b) Completion of eighth grade; or literacy in English and attendance at evening or continuation school: One State—Nebraska.

(c) Completion of eighth grade for child under 16 (certificate requirement extends to 18): One State—Utah.

(d) Completion of eighth grade for child 14 to 15 (with exemptions) no requirement for child 15 or over: One State—Washington (according to continuation school law).

(e) Completion of sixth grade: Ten States—Connecticut, Illinois, Iowa, Maine, Massachusetts, Michigan, New York (eighth for child under 15), Pennsylvania, Rhode Island, West Virginia.

(f) Completion of fifth grade: Five States—Alabama, Arizona, Kentucky, Maryland, New Jersey.

(g) Completion of fourth grade: One State—Arkansas.

(h) No grade specified; proficiency in certain subjects required (usually ability to read and write English, or ability to read and write English and perform simple operations in arithmetic); Seven States and the District of Columbia—Colorado (evening-school attendance ac-

cepted as substitute), District of Columbia, Florida, Idaho (requirement specified, but no mention made of certificate), New Hampshire, Oklahoma (specified school attendance may be substituted), South Dakota (specified school attendance, or lawful excuse therefrom, may be substituted), Tennessee (by implication from compulsory school attendance law).

(i) No requirement other than specified school attendance during preceding year: One State—Georgia.

(j) No educational requirement; Ten States—Louisiana, Mississippi, Missouri, Nevada, New Mexico, North Carolina (State child-welfare commission may make rulings concerning requirements for issuance of employment certificates), South Carolina, Texas, Virginia, Wyoming (no legal provision for employment certificates applicable to general occupations).

No child is permitted to go to work without examination by a physician in twenty-two states. The examination is optional with the officer issuing employment certificates in seven other states. No such examination is required in nineteen others.

A maximum working day of not over 8 hours or not over 48 hours per week for children under 16 years in stores and factories is provided in twenty-three states. Fourteen other states have essentially the same general requirement with some exemptions. Eleven states permit a nine or ten hour day, or over, and a 51 to 60 hour week.

Night work for children under sixteen is prohibited without exemptions in twenty-six states, with exemptions in eighteen and there is no prohibition in four states.

The use of employment certificates or work permits illustrates growth in the use of a simple administrative device. These certificates are usually issued when the child who wishes to leave school to go to work presents:

- (a) Proof of age
- (b) Proof of schooling through the required grade
- (c) Physician's certificate of physical fitness
- (d) A written promise of employment

They were in use in many states before the compulsory continuation school came into existence. Their chief value was to make sure that children were not released from day school until they had met the legal requirements. Once they were released, however, no one was responsible for checking them from time to time to determine whether they really were working. The consequence was that thousands of children used the employment certificate as a means of getting off the attendance rolls of the day schools. They worked for a few days or a few weeks and then loafed whenever they wished to. When the continuation school came into existence with the requirement of attendance at least one day each week a cross-check was established on the actual employment of the children. Those that were out of work were either placed in other jobs or returned to day school. The result was the virtual elimination of loafing in the 14-16 year group. In most states, however, the continuation school does not yet enroll children more than sixteen years of age, so the loafing still persists with the older group.

A specific instance will illustrate the extent of this evil. In Pennsylvania the former employment certificate records indicated at least 50,000 children of the 14-16 year group at work. There never has been a time when the continuation school records showed more than about 22,000 at work at a given time. Thus at least half the original group must have been loafing.

An argument frequently used by employers in opposition to raising the compulsory school age and grade is that labor conditions demand the use of 14-16 year chil-

dren. It is quite probable that at any time there are enough 16-18 year old children loafing to fill all the jobs left vacant by compelling the 14-16 year old children to remain in day school.

Employment certificates extending at least up to the age of sixteen are now required in 45 states.

Compulsory attendance at evening school is required in not more than ten states. In general such attendance applies to those 16 to 21 years old who cannot speak or write English. It is very difficult to enforce such a law with any degree of satisfaction. A large number of those to whom it applies voluntarily attend Americanization classes. The others are described by implication in the remark of a harried attendance officer, "Yes, I can enforce the law, but I need one officer for each pupil."

Minimum Standards. The following standards for children entering employment were drawn up at a series of conferences of child welfare experts from the United States and many foreign countries called by the Federal Children's Welfare Bureau in 1919.

1. An age minimum of 16 years for full time work in any occupation; 18 years in and about mines and quarries; 21 years in the special delivery service of the Post Office, and for girls as messengers for telegraph and messenger companies.

2. Attendance at full time school for at least nine months each year for all between 7 and 16 years; completion of eight grades; attendance for those between 16 and 18 years who have not completed high school, in continuation school if employed, in full time school if not employed.

3. Physical examination and establishment of physical fitness before being permitted to go to work; annual physical examination of all workers under 18 years.

4. A maximum 8 hour day or 44 hour week with hours

spent in continuation school counted as part of the working day.

5. Night work prohibited between 6 p.m. and 7 a.m. for all minors.

6. Employment certificates required for all workers under 18 years, issued only on proof of age, school grade, physical fitness and promised employment.

7. Adequate provision for factory inspection and physical examination.

8. A fair minimum wage.

9. Adequate placement and employment supervision under a central agency.

The age and grade minima prescribed in these standards are well within the bounds of possibility so far as school administration is concerned. The chief obstacle is the cost. It means holding in full time school 279,481 fourteen year olds and 504,100 fifteen year olds who are now at work, an addition of 783,581. It means increasing the continuation school group from 256,133 to 2,184,088, an addition of 1,927,955. At an average annual cost of \$100 per pupil² in full time school and \$30 for continuation school pupils,³ the total increase is about 135 millions. The 1920 cost of public elementary and secondary schools in the United States was 1,036 millions, so the increased cost would be approximately 13%. We weathered an increase in school costs of 71% between 1915 and 1920.⁴ Can we endure 13% more?

A bothersome item in school administration is the proposal to compel full time attendance of the 16-18 year pupils who are not at work. No difficulty arises until they have gone to work and then have lost their employment. They do not fit in day school because they have lost their class standing, nor do they fit in the continuation school which is not adjusted to full time attendance. The group is large, ranging from 10% to 40%

of the number of young workers, and its membership changes from week to week. The problem of securing emergency teachers is difficult; that of securing available rooms is more difficult. The out-of-work group constitutes one of the difficult administrative problems of the continuation school to-day. It is not insurmountable if money is provided.

The standards on physical examination, employment certificates, inspection, and guidance, simply come down to a question of cost. There is a sufficient body of experience now to guarantee efficiency if an adequate working force is provided.

The question of a minimum wage will certainly precipitate hostile discussion. The wage question in relation to present continuation school attendance is a bone of contention. Pupils and parents insist that the required attendance deprives pupils of jobs and reduces their wages. There is some truth in their charge but not enough to make it a strong argument. Taking young workers away from employment 4, 6, or 8 hours each week is a decided annoyance to employers. Production whether it be the running of errands or the operation of a machine, must stop or additional workers must be employed. In general, the employer of a few juvenile workers lets the work pile up; the employer of many puts on additional workers. Foremen complain to employers. The actual slacking of production may be small, but the complaints are vociferous. Some employers refuse to employ juvenile workers, others grumble but continue to employ them. Incidentally, it is noteworthy that after a period of using workers over 16 years of age, employers tend not to go back to their use, even when such action is possible. For instance the department stores of Boston have almost eliminated the use of 14-16 year old workers and the 14-16 year old breaker boys of the anthracite coal mines were not taken back when the abro-

gation of the Federal child labor law made their employment legal.

When the policy of employment or non-employment is settled a routine is quickly established, but the feeling of annoyance remains. Repeatedly employers who have no need for more workers and no intention of hiring more, tell juvenile candidates that the required attendance at continuation school is the reason for not hiring them. Thus the idea spreads and becomes a sincere belief on the part of parents and children. This is the qualitative statement of the case.

The quantitative statement is based on elementary economics and statistics. The number of jobs for juveniles is the resultant of many forces of which the existence or non-existence of continuation schools is only one. Few employers will hire younger help when they can get older workers at the same wage. General business activity and the relative supply of labor are the most important factors. Thus, in 1920 Massachusetts and New Jersey were in the midst of the readjustment due to their recently passed continuation school laws, yet between 1910 and 1920 the increase in number of minors employed in manufacturing and mechanical industries, those chiefly affected by the law, was 9.8% in Massachusetts and 12.6% in New Jersey. In Wisconsin where continuation schools had been established during practically the entire decade, there was a decrease of 9.2%. Pennsylvania with similar conditions had a decrease of 28.6%. In New York, where conditions were very similar to those in Massachusetts and New Jersey, the decrease was 25.8%. Rhode Island with no state wide continuation school law showed an increase of 15.9%. Connecticut with practically identical requirements was nearly stationary with only 0.3% increase. The states mentioned are among the largest users of 14-16 year old labor where a causal relation between continuation schools and amount of em-

ployment would be most likely to show itself. The percentages cited show so much variance that no causal relation can be traced to continuation schools.

The figures on attendance at the Boston Continuation school over a series of years show that the continuation school law had absolutely no effect in cutting down number of jobs. From 1915 to 1919 there was no change in the letter of the law nor in the spirit with which it was enforced, yet the number of pupils in attendance, which means in employment, was for the successive years, 2300, 3400, 4500, 5500 and 6500. The only school law which prevents children from getting jobs is a law which absolutely prohibits their working. So long as there is an exemption clause permitting them to work under certain conditions, jobs will be open to them and they will be hired up to the saturation point determined by the economic law of supply and demand.

Wages are determined under the same law. Those who are on a piece rate lose wages in so far as their weekly production is cut down by the required attendance at continuation school. This condition becomes increasingly marked for the group over sixteen years of age. Most of the 14-16 year group work for a flat weekly wage which in the long run is determined by economic law, not by continuation school law. This was shown in the Boston School during the period mentioned when the demand for juvenile workers due to war conditions not only increased the number of jobs but also increased the average weekly wage from \$4.10 to \$5.25 and then to \$7.00.⁵

Federal Regulation. Direct federal regulation of young workers has been attempted in two so-called federal child labor laws and an effort to amend the Constitution. The lack of uniformity in state regulation which has been illustrated is the chief argument for federal control. Whenever a proposal to raise standards is made in a

progressive state the argument is always raised that such action will give an unfair advantage to those states which are backward in such legislation. The right of the state to control child labor is a part of its police power, to control public health and general welfare. When conditions of employment result in failure to develop the full mental and physical capacity of the child, there is a loss to society. Therefore the state is justified in exercising the police power to improve conditions.

This power, however, is expressly reserved to the states under the federal constitution. When the first proposals for a federal child labor law were made they encountered this obstacle. In order to accomplish the aim sought, a clause was inserted in the interstate commerce law in September 1916 prohibiting the shipment in interstate or foreign commerce of the product of any mine, quarry, cannery, workshop, factory or manufacturing establishment in which children under fourteen years of age were employed, or children between fourteen and sixteen years of age were employed more than 8 hours a day, 6 days a week, or at night. This law went into effect on September 1, 1917. On June 3, 1918, after it had been in operation 275 days the law was declared unconstitutional by the Supreme Court on the ground that in the guise of interstate commerce Congress was entering the field of factory legislation.

A second attempt was made by attaching a clause to the internal revenue law on February 24, 1919. This provided for levying a tax of ten per cent on the annual net profit of any mill, cannery, workshop, factory or manufacturing establishment or of any mine or quarry employing children in violation of the standards of the first act. This law became operative April 25, 1919. It was declared unconstitutional on May 15, 1922, on the same ground as before, namely that it was an infringement on the reserved rights of the states.

By this time it was evident that before any federal child labor act could be passed, an amendment to the Constitution was needed. The House on April 26, 1924, and the Senate on June 2, 1924, passed the resolution as follows:

Section 1. The Congress shall have power to limit, regulate, and prohibit the labor of persons under eighteen years of age.

Section 2. The power of the several states is unimpaired by this article except that the operation of state laws shall be suspended to the extent necessary to give effect to legislation enacted by Congress.

This proposed amendment is now before the states for ratification. At the time of its passage prospects for ratification seemed very good, as no very serious opposition had developed in Congress. As soon as it was presented to the various state legislatures, however, serious opposition arose. Failure of more than one-fourth of the states, that is of 13, to ratify meant defeat. Employers were generally in opposition on the ground that the proposed amendment gave Congress undue control of industry. Agricultural interests which had been uniformly exempted in the state child labor laws were strongly against it. Many state legislators saw in the proposal a dangerous invasion of state rights. Others objected because it was the second step, the eighteenth amendment being the first, in a method for permitting any powerful group of reformers to force their will on the entire nation through constitutional amendment. Against these arguments the proponents of the measure cited the evils of child labor and the need of uniform control. At the present time fourteen states have voted against the proposed amendment. Unless some of them reconsider, the measure is therefore defeated.

One of the interesting phases of the legislative debates and the newspaper comment on the proposed amendment

was the frequency with which extremists on either side gave a false impression of the facts. One typical argument of the opponents of the bill which was in frequent evidence was that Congress could (and presumably would) enact legislation prohibiting a parent from sending the daughter to the kitchen to wash the dishes or the son to the barn to milk the cow. On the other side was this type of statement, "I am a child worker. Day after day I toil in textile mills where there is only the roar of the machinery and the sharp commands of the masters. —I have a bad cough. The doctor says I should be sent away to the country, but father says it can't be done.—I'm just a little slave boy, who has never been to school and who knows only to tend a loom, but I think it's hardly fair. Do you?"

The real point at issue is, of course, whether control should be vested in the separate states or in the federal government. That debate is as old as the constitution itself. The potential evils of child labor remain the same whether the control be vested in the states or in Congress. On the one hand, in the child labor laws which were passed by Congress, no disposition was shown to go any further than ground already occupied by most of the states. On the other hand maudlin sentimentality is no basis on which to seek the passage of important legislation. Surely the one-fifth of all the 14-16 year old boys and girls in the United States, who are working, are not little slaves racked with bad coughs. Nor are the two-fifths of the 16-18 year group, who are working, any other than healthy, normal young Americans who, with very few exceptions, would rather work than go to school. Let the sentimentalists take either group, dress them in their Sunday clothes, and mingle them with school children of their age, and they will have difficulty in distinguishing the workers from the non-workers. The real argument for further restriction and control lies in

the fact that the members of the younger group are largely wasting their time in the kind of employment which is open to them. They get some good out of it, but they would get more good from being kept in school until they are sixteen. The members of the older group need guidance and specific instruction for advancement in employment. Society cannot afford the waste which now occurs. The social cost of child labor becomes a convincing argument as it becomes specific.

Health is one of the specific items. Employment during adolescence tends to be detrimental to normal physical development because these are the years of greatest growth; the growing body is liable to overstrain and many of the operations performed by the children involve overstrain of one kind or another. Employed children do not have time for sufficient play for proper physical development. They are more prone to accidents than adult workers because of playfulness, ignorance, and carelessness.

The relative amount of ill health among young workers in the United States is not known.⁶ In Austria, one of the few countries where any study of the effects of work on young people has been made, sick insurance records show a high rate of morbidity among young workers especially during the second year of working life. One study of the causes of death among cotton mill operatives in Fall River showed that the death rate from tuberculosis among boys 15 to 19 years old employed in cotton mills was nearly double that of boys not so employed, and among girls was more than double that of girls not so employed. On the other hand, a 1924 investigation in New Bedford by Dr. H. G. Rowell of Columbia University showed that as a rule the working child was less likely to be under weight than the school child; the working children had gained considerable weight during the short time they had been at their jobs, especially those

who had been under weight. In general, however, there is not enough evidence to warrant conclusions.

In those states which permit children to go to work before they have received the rudiments of education, illiteracy and lack of minimum training are a menace. In five such states out of about 20,000 children 14 to 16 years old, more than one-half had not completed the fourth grade and more than one-fourth were unable to sign their own names legibly. In another group, less than one-fourth had reached the seventh grade and only a little over one-half had reached the fifth. In one city three-fourths had gone to work before reaching the fifth grade; in another one-third had not reached the seventh; in another only one-half had completed the eighth.⁶

How much of juvenile delinquency is traceable to an environment of poverty and how much to working conditions is uncertain, but juvenile delinquency is greater among working children than among school children.⁶ One investigation showed that 56.5 per cent of the delinquent boys and 62.2% of the girls were working children.

Every investigation shows the social cost, whether it is in the anthracite coal fields of Pennsylvania, the cranberry bogs of New Jersey, the shrimp canneries of Florida, the beet fields of Colorado, or the cotton fields of Texas. From the time of the Douglas investigation in Massachusetts in 1906 to the last unpublished report by the Children's Bureau the evidence has accumulated. Of the 1,060,858 young workers under 16 years of age reported by the 1920 census, the working conditions of the million ranged from good to fair, but the condition of the sixty thousand was bad. The proposed amendment to the Constitution was designed to open a way for uniform improvement for the larger group and for the elimination of the conditions affecting the smaller group.

Federal financial aid. Although the federal government does not exercise any control over working conditions, it does, through the distribution of federal funds, exercise a considerable influence over educational opportunities for young workers as well as for adults. The general procedure under which these funds are granted is that for every dollar contributed by the nation at least another dollar shall be contributed by the state or community. Such use of federal money is justified by its proponents on the ground that the close interrelation of all parts of the nation by means of modern methods of transportation and communication causes a social problem in any section to affect social conditions in other parts of the country. Where the poverty or indifference of local authorities would delay the application of remedies, the use of federal funds stimulates prompt action. Those opposed to the system argue that it is not fair to the wealthier states because they receive back as federal aid far less than they pay in as federal taxes. In the case of New York, for instance, the return in federal aid of all kinds is about one per cent of the federal taxes paid by the state. The system, however, is well established. Since the institutions or activities cited must maintain minimum standards set by federal agents as a condition for receiving aid, the net result is that the federal bureaus exert a powerful influence. Usually policies are determined in a very democratic way by calling conferences of local representatives and getting a consensus of opinion. In the end, however, standards are determined by the federal bureaus with the result that arbitrary rulings are possible.

The Department of Agriculture and the Federal Board for Vocational Education administer, respectively, the funds for rural extension education and for vocational education. Their relation to local activities is shown by a brief account of the development of these activities.

The Morrill Act of 1862 supplemented by the second Morrill Act of 1890 provided for a college of agriculture and mechanic arts in each state. In 1889 the United States Department of Agriculture was formed. The extension work of the land grant colleges thus developed slowly under the Department of Agriculture. When the Smith-Lever Act was passed in 1914 the States Relations Service was expanded so that it not only carried on the previously established experiment stations and issued bulletins on various phases of farm management but also started special investigations of agricultural instruction in schools and farmers' institutes. Meantime experience had shown that the mere issuing of bulletins did not serve the farmers because only in rare cases was the information in the bulletins applied in actual farm practice. The conviction grew that the findings of these bulletins would be of greatest value as they were carried out in actual supervised demonstrations on the farms. The persons in charge of these demonstrations are called county agents, and are employed cooperatively with the states. The functions of the county agent are to study agriculture in his county, make surveys and give the results of his studies to farmers through the local press, lectures, institutes, circulars, short courses and personal interviews. He organizes clubs, endeavors to coordinate existing agricultural agencies within the county, develops local leadership, brings problems from the farmer to research institutions and carries back to the farmer the findings of the research institutions. This work is now handled by more than 2000 county agents working with men, more than 700 agents for home demonstration and girls' club work working with girls and women, and about 200 county leaders for boys' and girls' club work. This work carried on under the direction of the extension departments of the state universities in cooperation with the United States Department of Agriculture directs its

attention to adult education. Since this work heads up to the state universities and involves cooperation with the public schools it is essentially a part of the public education system.

In addition there has developed another distinct system of education cooperating with the Federal Board for Vocational Education as a national institution and heading up through the city or county superintendent of schools to the state board of education. This system includes the vocational schools or classes subsidized by Smith-Hughes funds, and is at present active in these lines of work: Vocational classes in agricultural, trade and industrial, and home economics education in all-day, part-time and evening schools. Since 1920 the rehabilitation of civilians disabled in industry has been included, with federal aid provided from special funds.

The report of the Director of Extension Service (June 30, 1924) of the U. S. Dept. of Agriculture stated that federal appropriations amounting to \$5,880,000 were made available to the States for extension work under the terms of the Smith-Lever and supplementary acts, and \$11,954,464 were appropriated by the States, counties, and other agencies for cooperative extension activities. The total amount available for extension work in the United States during the fiscal year was \$19,403,194. The total amount of Smith-Hughes funds available for vocational education during this year was \$5,190,448. Of this 93% was expended and was matched by approximately \$14,000,000 of state and local funds. The total amount expended was about \$19,000,000.⁷

The U. S. Bureau of Education deals with the education of young workers only as part of the general program. In gathering statistical information and compiling bulletins naturally a part of the activity of the Bureau is directed towards this field. Because the direct administration of schools is a state function, the work of the

federal bureau is largely limited to compiling information.

The Children's Bureau of the U. S. Department of Labor deals with all phases of child welfare. Among these the problem of children in industry has been very important and in consequence a great deal of the activity of the Bureau has been directed to special studies. Numerous bulletins compiled with scientific research form one of the best sources of information in this field. These have had great weight in influencing state legislation. The administration of the first federal child labor law was in the hands of the Children's Bureau. Since that law was declared unconstitutional, the Bureau has confined its efforts to gathering and disseminating information. The Bureau has had some local administrative influence through the work of its juvenile employment service. A limited amount of federal funds enabled it to aid in financing placement bureaus in a number of cities.

We have traced the development of the economic and social forces which led to present industrial conditions, and have outlined the development of school organization and of state and federal legislation created to control and improve the lot of young workers. The next step is to view the young workers themselves.

REFERENCES

1. The information in the early part of this chapter is taken almost verbatim from pp. 30-39 of U. S. Children's Bureau *Bulletin No. 93*.
2. *Research Bulletin of N. E. A.*, Vol. II, p. 34.
3. Federal Board for Vocational Education. *Bulletin 73*, p. 68.
4. *Research Bulletin of N. E. A.*, Vol. I, p. 25.
5. Massachusetts Department of Education. *Bulletin No. 2* of 1920, p. 20.
6. U. S. Children's Bureau. *Bulletin No. 93*, pp. 24-26.
7. Annual Report of Federal Board for Vocational Education for 1924.

PART II

THE GROUP TO BE SERVED

CHAPTER IX

THE NUMERICAL DISTRIBUTION OF YOUNG WORKERS

*School Attendance.*¹ The time has come to change a metaphor of common speech. We frequently speak of an army of school children in the United States. They are not an army, they are a nation. We have thirty-three million boys and girls of school age, between 5 and 20 years. Two-thirds of this nation of young people are attending school; one-third or twelve million are out of school. The babies tend to stay with Mother, so only two-fifths of the 5 and 6 year-olds get to school. The lads and lassies, 7 to 13 years old, send nine-tenths of their number to school. Then the drop begins. One in five of the 14 and 15 year-olds have left school, three in five of the 16 and 17 year-olds, four in five of the 18 to 20 year-olds. The nation of school children has become a nation of young workers.

In this movement from school to work the city and the country do not maintain the same pace. The city has 94.4% of its 7 to 13 year group in school. The country has only 87.6%. But in the older groups, from 14 to 20 years, the country manages to retain 44.6% in school as against the city's 39.3%. Doubtless the reason for this is that opportunities for full time employment are more numerous in the city than in the country.

Further, the retaining of pupils to an older age in country schools is somewhat offset by the relative inferiority of those schools. Twenty-eight per cent of rural teachers are in one room schools. The number of days of

attendance per year is less than in city schools. A typical instance is that of nine Arkansas counties in which three had a school term less than 90 days, three between 109 and 122, and the remaining three from 132 to 168 days. When a city child leaves school to go to work, practically always he severs his connection with day school. The country child of the same age may, during a period of several years, work on the farm from April to October and go to day school during a short term. Thus the percentage of apparent retention in schools is increased. In criticizing the country school educators properly rate its efficiency with reference to the school child. For young workers, however, such short term educational opportunities may be very desirable. From this point of view the higher percentage of retention in the country is a real gain.

The tendency to retain greater numbers of children in school can be traced through the statistics of fifty years. The comparison of 1910 and 1920 is typical. In that period both city and country increased the proportion of 5 and 6 year-old children in school by one-sixth; the city increased the 7 to 13 year-olds by 2.6%, the country by 5.2%. But whereas the 14 to 20 year group in the country showed practically no change, in the city it increased one-seventh. This difference is probably due to the development of junior and senior high schools in cities and the child labor legislation in which there were exemptions which affected the country more than they did the city.

*Illiteracy.*² Presumably the illiterate youth is not a school child but a young worker. The percentage of illiteracy is higher among boys than among girls up to 20 years of age. Beyond that age there is no essential difference between the sexes. In the 10 to 15 year age group one in fifty is illiterate; in the 16 to 20 year group, one in thirty-three. The fact that for those above 21 years the ratio of illiteracy doubles, becoming one in four-

teen, is largely due to the adult immigrant and the negro. One in seven of the foreign adults and one in four of the negroes are illiterate.

That considerable progress has been made in checking illiteracy is shown by a comparison of 1910 and 1920 figures. In that period illiteracy in the 10 to 15 year group, reduced from 4.1% to 2.3%; in the 16 to 20 year group, from 5.5% to 3.3%.

This improvement has affected the city and country about equally. The points of attack for remedying the situation further are seen in a tabulation which distributes illiteracy by racial groups. The following tabulation shows improvement between 1910 and 1920 on every item, both in urban and rural districts. It is very evident that for city and country the groups needing most attention are the foreign born whites and the negroes in the 16 to 20 year group.

Illiteracy—Percentage Distribution by Parentage²

1920 Census Age	Native White Native Parentage	Native White Foreign or Mixed Parentage	Foreign Born White	Negro	Total
URBAN					
10-15 years.	0.3	0.2	1.8	2.8	0.5
16-20 years.	0.5	0.4	4.7	6.1	1.3
RURAL					
10-15 years.	1.6	1.2	11.9	14.2	3.8
16-20 years.	2.3	1.3	13.5	19.0	5.2
1910 Census					
URBAN					
10-15 years.	0.4	0.3	2.6	6.4	0.9
16-20 years.	0.6	0.6	13.6	8.9	3.2
RURAL					
10-15 years.	3.0	1.3	9.1	22.0	6.1
16-20 years.	3.5	1.5	17.9	25.0	7.4

Distribution in Employment. The fact that children are not in school does not necessarily mean that they are

at work, so the percentage reported in gainful employment is smaller than the percentage reported out of school. The tendency between 1910 and 1920 to restrict employment of minors reduced the employed boys and girls in the 10 to 13 year group to about one-third of the former number. The number of 14 year-olds was reduced to one-half, of 15 year-olds to two-thirds, of 16 and 17 year-olds to three-fourths, of the 1910 percentages. The 1920 distribution of young workers by age is shown in this tabulation:—

<i>Percentage of Each Age Group Gainfully Employed³</i>		
	1920	
	<i>Boys</i>	<i>Girls</i>
10-13 years	6.0	2.8
14 and 15 years	22.3	11.6
14 years	16.9	8.2
15 years	30.4	15.4
16 and 17 years	58.0	31.6
16 years	51.3	27.9
17 years	65.0	35.7
18 and 19 years	78.3	42.3
20 to 24 years	91.0	38.1

The range in age distribution varies greatly by section. Thus, from New England to the Pacific Slope: ³

Boys, 10-13, at work, vary from 0.9% in New England to 17.5% of the group in East South Central States.

Girls, 14 years, at work, vary from 6.8% on the Pacific Coast to 17.3% in New England and 32.9% in East South Central States.

As the group increases in age, the percentage range is less, thus in 17 year-olds it is from 51.4% in Mountain to 73.9 in Middle Atlantic States.

With girls the variations are wide, but not so wide as with the boys in the younger age groups.

The need of a local survey is shown by similar wide variations in cities selected at random. Thus,³ the fifteen year-old girls have 5.5% of their number at work in

Youngstown, Ohio, while in Pittsburgh, Pennsylvania, only sixty miles distant and with practically identical industrial activities the percentage is 15.1. In this instance the difference is due to state law, since, with some exemptions or restrictions in each state, Ohio law restrains the children in day school until 16 years, while Pennsylvania law permits them to work after 14 years. But the 15.1% of Pittsburgh becomes 48.9% in Reading, Pennsylvania. Here the same state law applies to the two cities. The difference is due to the fact that Pittsburgh maintains chiefly industries in heavy mechanical pursuits not suited to the use of young female labor, whereas Reading maintains very large hosiery and textile mills where such labor is readily employed.

Further, the local survey should be in the nature of a continued inventory. In the two cities just cited, Pittsburgh and Reading, the figures for the 1920 census were taken in the midst of the intense industrial activity following the world war. Similar figures in either city taken two years later would have been much smaller, because an industrial depression had reduced the number of fifteen year old workers by probably one-half.

The trend of employment in the United States from 1880 to 1920, for the 10-15 year group is as follows:—

*Per Cent Employed—10-15 Year Group**

		Both		Male		Female
1880	—	16.8%	—	24.4%	—	9.0%
1890	—	18.1%	—	25.9%	—	10.0%
1900	—	18.2%	—	26.1%	—	10.2%
1910	—	18.4%	—	21.8%	—	11.9%
1920	—	8.5%	—	11.3%	—	5.6%

In some respects the figures are not strictly comparable, especially as the 1920 figures, taken in January, tended to be smaller than if taken later. Nevertheless, the figures tell the story of forty years of static condi-

tion followed by ten years of decided change as public disapproval of child labor expressed itself in legislation.

It is almost impossible to visualize the distribution of young workers in industry, not only because they are scattered among so many different occupations but also because different occupations take such widely varying numbers. A unit of measurement applied to one age in one occupation is too small to be used to measure the number of that age in another occupation. How can one compare the total of 199 fourteen year-old boys employed in Public Service with 109,360 of that age employed in Agriculture? What is the significance between 133 sixteen year-old girls employed in the extraction of minerals and 107,822 of that age employed in the manufacturing and mechanical industries? One must find some kind of common denominator before planning to lay out educational opportunities for any group. The actual numbers are given in Table III in the Appendix in a tabulation which distributes five million young workers between the ages of 10 and 20 years only among nine chief occupations. When it comes to subdivision in each town a local survey is needed to determine the distribution of the young workers. The complexity of this distribution is illustrated by a study made in Detroit where 585 fifteen and sixteen year-old boys were scattered through 149 different occupations and 753 girls of the same age were scattered through 54 occupations. The mind can not grasp the bewildering complexity of the thousands of different positions held by our five million boy and girl workers.

Agriculture claims the largest number of any of the large divisions of occupation for all under 16 years of age. It has over six hundred thousand, comprising 61% of the younger group. For those beyond the age of 16 years, Manufacturing and Mechanical work employs more than Agriculture. Clerical Occupations rank next for both

the young and old groups, with Trade ranking next. Transportation calls for relative few under 16 years of age but beyond that point creeps steadily up on the Clerical Occupations in the extent of its demands. Domestic and Personal Service takes substantial numbers beginning with the 10 year group until as an occupation for females it ranks third in the 18 to 19 year group.

One of the questions aroused by the study of this tabulation is as to what happens to the girl on the farm. There are actually less 15 year-old girls listed than 14 year-olds, and the number of 17 year-olds is still smaller. One suspects that thousands of girls living on farms and employed in house work at home were not counted as being employed in Agriculture. Undoubtedly many girls leave the farm at about that age to take positions in factories, stores, and offices in the city. Finally, as will be shown later, farm girls of the 15 to 19 year group tend to stay in school longer than do farm boys of the same age. It is to be noted that extraction of minerals, public service and professional service take relatively few workers under 15 years of age. Extraction of minerals employs only an insignificant number of girls, but it becomes an important industry for boys 16 years old and increases in importance as the boy gets beyond that age.

Public Service similarly begins to call the boys at 18 years, but takes few girls. Professional Service presents opportunities chiefly to those past 17 years of age, and for the girl past 18 years, becomes one of the leading occupations.

Up to this point no mention has been made of the 20 to 24 year group. In numbers it amounts to practically six million and in size surpasses the entire 10 to 20 year old working group by one-fifth. The relative distribution of this group among the nine major occupations has an important bearing on laying out educational opportu-

nities because the younger workers in their years of preparation will be heading up toward the distribution indicated in the 20 to 24 year group.

The distribution of young workers by age and occupation, on a nation-wide basis, should have comparatively little effect in determining the development of an educational program. Any worth-while survey shows that within a given community the distribution may be very different from that required by the same totals in a wider area. It is this local distribution which should determine the type of local educational opportunities offered. In the final result, over a wide area, the distribution of educational opportunities probably will not differ greatly from the wide-area distribution in employment. In the local community, however, the difference between success and failure may easily depend upon whether the educational opportunities grew out of a study of actual local needs or were taken over ready made from some outside source.

Distribution in schools. We know with reasonable certainty how many young people of each year of age are at work. When, however, we try to check their enrollment in schools or classes providing further education we can make only an approximate estimate. The reason is that only occasionally are the enrollment figures distributed by age. The range of ages in Y. M. C. A. classes, public evening schools, university extension classes and correspondence schools is from 15 years to 50 or more. The majority age of Y. M. C. A. classes is 20 to 29 years, the average age is 25 years. Their general estimate of boys 17 to 20 years of age enrolled in school is 20% of the age group. In his study of thousands of employed boys 17 to 19 years of age in New York State, Howard Burdge had from the boys themselves reports showing an enrollment of 10% of the group in all types of post-school education. The annual

report of the Superintendent of Chicago Schools for 1921-1922 (Table XV) shows the following age distribution in evening schools:

Between 14 and 21 years—54.8% of the total enrollment
Between 21 and 25 years—18.4%

The Philadelphia Public School Statistics for 1922-1923 show:

14-15 years — 0.5% of the total enrollment
16-20 years — 53.6%

Total 54.1%

The Boston Public School Statistics for 1923-1924 show:

14 years — 1.9% of the total enrollment
15 " — 3.5%
16 " — 9.9%
17 " — 9.9%
18 " — 9.0%
19 " — 8.0%
20 " — 6.8%
14—20 " — 49.0%
21—25 " — 21.5%

These figures indicate that for city evening school systems about 50% of the pupils enrolled are under 21 years; 20% are between 21 and 25 years; and 30% are older than 25 years. The total number of young workers 10-20 years of age is approximately five million; of those 20-24 years of age it is about six million. Against this total of eleven million we can set the total enrollment in educational classes, as on the next page.

To these figures might be added the estimate of one million who enroll for privately controlled correspondence courses each year, of whom probably not more than 50,000 complete enough of the work to justify calling their effort education. If this 50,000 is divided between the groups, the total is about two million students for combined groups, about 925,000 for the 14-20 year group, and about 530,000 for the 21-24 year group. The total

108 EDUCATIONAL OPPORTUNITIES FOR YOUNG WORKERS

	Total Enrollment	Estimated Enrollment from 14-20 Year Group		Estimated Enrollment from 21-24 Year Group	
Y. M. C. A. (1920-22).....	120,205	20%	24,000	40%	48,000
Y. W. C. A. (rough estimate 40 cities 300 each).....	12,000	20%	2,400	40%	4,800
K. of C.	89,931	20%	18,000	40%	36,000
Commercial business colleges	336,032	40%	130,000	50%	168,000
Commercial mechanic schools	100,000	20%	20,000	40%	40,000
Corporation apprentice schools (rough estimate)...	5,000	all	5,000	none	
Public evening schools (1921-22)	842,863	50%	420,000	20%	168,000
Part time schools (1924)....	256,133	all	256,133	none	
University extension courses (1921-22) excluding summer school students)	120,793	20%	24,000	40%	48,000
Total	1,882,957		899,533		512,800

enrollments given above are taken from various recent authentic publications and are fairly accurate. The distribution to the 14-20 year old group and the 21-24 group is open to question.

It is probable that, as shown in the detailed percentages from Boston, there is a decreasing percentage of enrollment for each year after the twentieth, so that the relative enrollment of the older group would be less than that of the younger.

From the foregoing it appears that about 18% of the 14-20 year group and about 8% of the 21-24 year group are engaged in some type of post-school education. The writer confesses to considerable surprise at finding these percentages so high, especially for the younger group. In spite, however, of the rather dubious methods by which the results were calculated they will stand inspection. For instance, the evening school and part-time school figures are quite accurate, and these alone would account for at least 13% of the younger group.

The total enrollment given is a minimum enrollment. No figures are included for 35,000 pupils reported in federally aided trade extension courses because some of these are undoubtedly included in the total for evening schools. None are shown for privately conducted schools, like Pratt Institute, Drexel Institute or Dunwoodie Institute, in which the enrollment amounts to many thousands. The million farmers who annually attend the institutes conducted by the state agricultural colleges and the million women reached by the home demonstration work of the Department of Agriculture are not counted because it is impossible to estimate how many of them are young workers. For the same reason 425,000 enrolled in boys' and girls' farm clubs are not counted.

A point to emphasize here is that the great bulk of the enrollment recorded is in educational opportunities restricted to cities of 2,500 population and over. The 1,600,000 of the younger group and the 1,135,004 of the older group who are engaged in agriculture have very little opportunity to enroll except in the university extension courses. Consequently the actual percentage of enrollment in the cities must be higher than is here indicated.

REFERENCES

1. *U. S. Census 1920*, Vol. III, Table 2.
2. *U. S. Census 1920*, Vol. III, Table 4.
3. *U. S. Census Monograph III*, p. 376, Table 2; p. 440, Table 15; p. 459.
4. *U. S. Census 1920*, Vol. IV, p. 476.

CHAPTER X

TYPE GROUPS OF YOUNG WORKERS IN CITIES

THERE is a story about a young lady who gazed repeatedly at a photograph which hung on the wall of her brother's room. In time she discovered that she was in love with the original. Her hopes were dashed when she learned that it was a composite photograph of all the members of her brother's college class. Similar results may be feared from attempts to devise educational opportunities for that composite being whom we call the young worker. A study of groups is helpful in so far as it tends to emphasize salient characteristics of the members of the group. But we must depend on the genius of the school administrator to devise courses justified by group needs, and must hope for wisdom and sympathy on the part of each teacher in resolving the members of the groups into individual boys and girls.

Let us see, then, how far a study of groups will carry us.

TYPE GROUP, 14-15 YEARS OLD, BOSTON

A study in October, 1924, of 1,691 boys and 1,286 girls of the Boston Continuation School reveals facts which can be taken as typical of the 14 and 15 year-old workers in any city in which pupils may go to work after

completion of the sixth grade and the attainment of the fourteenth birthday.

What are their ages? The percentages are to nearest five-tenths.

	Boys	Percent	Girls	Percent
14 years to 14½....	121	7.0	94	7.0
14½ years to 15	262	15.5	203	16.0
15 years to 15½....	440	26.0	379	29.0
15½ years to 16	868	51.0	610	47.0
Total	1691		1286	

At what grade did they go to work?

Grade Completed	Boys	Percent
Special	19	1.0
6th	228	13.5
7th	449	26.5
8th	516	30.0
Elementary graduates	75	4.0
9th	105	7.0
1st year High	232	14.0
2nd year High	58	3.5
Above 2nd year High	9	0.5

What kind of work are they engaged in?

	Boys Percent	Girls Percent
Manufacturing establishments	11.64	67.0
Mechanical establishments	24.83	10.0
Mercantile establishments	49.14	7.0
Business offices	9.28	7.0
Domestic and personal service	1.80	10.0
Home permits		
Unclassified	1.83	0.3
Unemployed	1.18	

The large number of boys in mercantile establishments are serving chiefly as errand boys. Most of the girls work in shoe, clothing, candy and other factories; the relatively small number in mercantile establishments is due to a tendency growing through several years to

employ in department stores older girls from high school cooperative classes.

How many jobs have they held since going to work?

	<i>Boys</i>		<i>Girls</i>	
1 job	559	52%	697	57%
2 jobs	269	25%	294	24%
3 jobs	114	11%	133	11%
4 jobs	83	8%	59	5%
More than 4....	35		40	
Unanswered	632	Home permits	63	
	<hr/> 1692		<hr/> 1286	

What studies in addition to those of the continuation school do pupils carry on? Twelve per cent of the boys were attending evening school, and two per cent used the public library.

What is the attitude of these pupils toward the continuation school?

	<i>Boys</i>	<i>Girls</i>
Favorable	1315	851
Unfavorable	163	126
Did not answer	213	309

Why did these pupils leave day school?

Nowhere in the entire study is stronger evidence that young workers are intensely individual. Just as they vary in their individual response to intelligence tests, to type of employment, to drifting on the job, so do they vary in their reasons for leaving school. To one who reads with imagination and sympathy the facts herewith listed tell a story of family relations, of personal temperament, of youth adjusting itself to real responsibilities and to adolescent vagaries which is poignant in its human interest.

Reasons of Leaving Day School:

A. Economic conditions in the home.

	<i>Boys</i>	<i>Girls</i>
1. Illness at home	98	172
2. Death of parent	155	161
3. Parent unable to secure work...	92	81
4. Needed to work at home	138	75
5. Family troubles	109	57
6. Small family income not caused by above reasons	174	204
Total	766—45%	750—58%

B. Conditions in the school.

1. Slow progress in school	94	42
2. Discipline in school	22	19
3. Dismissed or discharged from Disciplinary School	10	
4. "Too big" to go to school	23	18
5. Dislike of school not caused by above reasons	79	101
6. Left school on teacher's advice..	33	4
7. Advice of friends	32	15
8. Absence from school	17	15
Total	310—18%	214—16%

C. Personal feelings of child or attitude of parent.

1. Personal illness	18	9
2. Have sufficient education, com- pleted course in Trade School or Business College	5	8
3. Desire for spending money.....	51	36
4. Did not wish to enter new school	66	39
5. Required to leave school by parents	129	66
6. Change of residence	34	12
7. Influenced by friend's employ- ment	67	42
8. Miscellaneous	53	25
Total	423—25%	247—19%

D. Vocational opportunity offered.

1. Work out of school hours led to good position on full time.....	17	10
2. Work during vacation led, etc...	38	39
3. Received offer of good position..	147	26
Total	202	75

How did you get present job?

1. Continuation School	266	78
2. Placement Bureau	22	19
3. Parent or friend	642	660
4. Advertisement in paper	84	44
5. Sign in window	41	16
6. Private employment agency ...	95	15
7. Personal application	356	294
8. Miscellaneous	14	7
Total	1520	1133
Did not answer	171	25
Home permits		128

Of the boys, 1501 stated what kind of work they would like to do in the future, naming 87 different occupations; and 662 stated that they had made plans to secure the desired type of employment.

In comparison with this study of fourteen and fifteen year old young workers while they were in the continuation school, the next table shows the reactions of a group who were in the school four years ago and are now twenty years of age. Of 1502 boys, only 221, or 14.7%, answered the questionnaires; of 567 girls, reports were obtained on 178. This indicates that the replies are from a highly selected group. Twelve per cent. of the boys who reply report that they obtained their present jobs through the employment department of the continuation school, thus showing that after four years the school is an important factor in their lives. Of the girls only two per cent report this fact.

Always bearing in mind that the relatively small percentage of these children who answered the questionnaire are by that very fact a selected group, and discounting the value of their replies still further because they may have unconsciously tended to say the things they thought their former teachers would like to have them say, nevertheless, the replies of these young people furnish valuable evidence as to the efforts of the

Reaction to Employment

		Boys	Girls
Do you like your work?.....	{ Yes	81%	80%
	{ No	15%	6%
Do you feel that it is the work for which you are best fitted?.....	{ Yes	39%	63%
	{ No	8%	20%
	{ Undecided	52%	....
What opportunity for advancement in your present work?.....	{ None	25%	40%
	{ Good	74%	34%
How many times have you changed employment since you became sixteen years of age?.....	{ Never	43%	50%
	{ Once	19%	12%
	{ Twice	10%	17%
	{ 3 times	9%	8%
Why did you change employment?			
Higher wages		56%	....
Work more suited to ability		28%	55%
Lack of work		12%	31%

Reaction to Life

Has your continuation school training changed your interests in life?.....	{ Yes	62%	40%
	{ No	36%	40%
Has it influenced the use of leisure time?	{ Yes	85%	50%
	{ No	14%	17%
In what way has the continuation school been of most benefit to you?			
Promotion or progress in employment		66%	
Appreciation of education		18.5%	
General improvement value		11%	
Habits of thrift		3.6%	

teachers to guide them in vocation, to train them in citizenship, and to lead them to appreciate the fact that education is a continuous process. A random selection from their replies is herewith given.

Extracts from the Replies of Boys

"The Continuation School teaches the boy to earn and learn at the same time."

"It taught me the necessity of 'Safety First' in the factory and on the street."

"It taught me the value of education."

"I became more broad minded and viewed things with keener interest after my course in Continuation School."

"It taught me my duties towards my home, my employer and my country."

"The value of attending evening school, reading good books and associating with good companions was taught me in Continuation School."

"Continuation School instruction helped me in repairing my car and saving the money which would be spent in repairs."

"I received lessons on the violin. I played in the school orchestra."

"It taught me to do my work thoroughly and to be honest in all my business dealings."

"In leisure time I made articles of furniture for home."

"It helps the boy find out the work he is best fitted to do."

"It made me think seriously."

"It gave me ambition to succeed."

"The Continuation School was a good adviser."

"It has a steadying influence on boys."

"It obtained for me credit at Evening High School for work completed at Continuation School."

"The course in Electricity taught me how to do odd jobs in electrical work in my home."

"It helps those who did not have a chance to complete Elementary School."

"It taught me obedience to law and order and respect for my parents."

"It taught me to study hard in order to succeed."

"It broadened my experience."

"The Continuation School reviews for the boy what he has previously learned."

"It taught me the value of a skilled trade."

"The teachers seem to understand the feelings and nature of the boys and have a desire to help them."

"It made me a better man and a better citizen."

"It has taught me how to study."

"The Continuation School gave me an incentive to get a job more in harmony with my tastes and ambitions than the one I originally had."

"The Continuation School should have a gymnasium."

"It should develop health habits in the pupils."

"Continuation School should be for boys 16-18 years of age as well as 14-16 years of age."

"It should be a four year course instead of a two year course."

"Instill in the pupils a desire to continue their studies beyond the instruction received in Continuation School."

"Teach the pupils more of the different trades."

"It should teach the pupils the art of public speaking through the medium of debating teams."

"The Continuation School prevents a boy from getting an increase in wages because of attendance during the working day."

Extracts from the Replies of Girls

"Takes girls from work."

"Continuation School more often hinders you because your employer does not like you to be out a half a day each week."

"You learn the same things you learned in Grammar School."

"Waste of time."

"Didn't gain anything."

"It has taught me to obey."

"A boy or girl leaving school at the age of fourteen goes into a factory and thinks he or she is done with school. Continuation School instills the desire to rise to a higher life than a factory hand and to obtain that higher life they must study hard."

"I think that Continuation School is a great help to working girls. I took up typewriting for one year and then being sixteen I started night school to learn more of a subject I started at your school."

"The spelling helped me in my work and stretched my vocabulary. Civics made me understand more broadly the conventions of life and the real things that count. Arithmetic kept me ready for any emergency financial matters which will come up. The reading helped a great deal."

"I am in favor of Continuation school for the benefit that the girl or boy of 14 to 16 may acquire. The child of 14 is taken from school where he or she has known little responsi-

bility and lots of play and is given a position with lots of responsibilities, no play, and is expected to know how to handle it. After the novelty has worn off the child again wants to be back playing the games that youth at that age play, and it doesn't want to be tied down from 8 in the morning until 5 at night with grown up people. They soon lose interest and the only one that can make them realize that work or business is a big game played by grown people and real people with real goals and real winnings is the continuation school and it's this kind of an interest that makes the child go ahead."

"It was lovely. If possible would go again."

"When pupils under sixteen graduate from the Grammar school they go straight to work. They forget many things which they were taught and become quite ignorant, whereas when the pupils have at least one year of Continuation School training their mind or brain is kept active by the studies which they happen to chance. Another thing is that through the Continuation School, unemployed are given employment."

"It teaches a girl how to act wherever she goes."

"It takes a girl's mind off her work for four hours a week."

"It has improved my English and made me eligible for clerical work. It enables boys and girls under certain living conditions to secure work and continue their schooling at the same time."

"It kept me from forgetting what I did learn."

TYPE GROUP, 14-15-16 YEARS OLD, BUFFALO

A similar study was made in January 1925 of 3,409 boys and girls attending the Buffalo continuation school. This study in comparison with the Boston study shows some effects of raising the continuation school age, since the Buffalo school is now handling 14, 15 and 16 year old young workers, and three-fifths of its pupils are in the sixteen year group. It substantiates the belief that the older group of young workers have many points in common with the younger group.

In spite of the fact that three-fifths of the pupils are sixteen years old, where the Boston group is composed of 60.5% of seventh and eighth grade children the Buffalo group has 66%. Boston has 21% of the last year of junior high or the first year of the four year high school; Buffalo has 18%. Boston has 3.5% of second year high school pupils, Buffalo has 7.1%.

They engage in the same kind of work, that is, they have the juvenile positions in all the dominant industrial and commercial activities of the city but the effect of local custom or opportunity is seen in the fact that in Boston 77% of the girls are in manufacturing or mechanical work, with only 10% in domestic work at home or for hire, whereas Buffalo has less than 30% in manufacturing and mechanical work, with 37% working at home, without wages.

The effect of the large proportion of sixteen year olds has no measurable effect on changing jobs. Deducting those who never worked in Buffalo and those who did not answer in Boston, the resulting percentages for boys and for girls who have had respectively one, two, three and four jobs varies by insignificant percentages from 52%, 25%, 11% and 5%.

Incidentally, the writer at this point registers a vigorous protest against the constantly repeated statement that these young workers are drifters from job to job. They lose their jobs frequently, to be sure, but almost always for reasons beyond their control. The writer has personally studied thousands of cases and has talked with hundreds of boys and girls. Out of this experience has developed the militant conviction that the real drifting is done by less than one-tenth of the boys and girls, that on the whole they are as steady as their older brothers and sisters, or their fathers, and that the good people who are so repeatedly shocked by juvenile change of employment would, if they were confronted by the

conditions which cause the youngsters to change, show no greater steadiness in permanence of employment.

Further comparison of the two studies shows that one-fifth of the Buffalo boys are apprentices. This large proportion is undoubtedly due to the presence of the sixteen year old boys, since only the exceptional boy under sixteen gets an opportunity to work as an apprentice. A corresponding situation among the girls is seen in 17% of Buffalo girls engaged in office work, in contrast to 7% of the younger girls in the Boston school. These differences are reflected in the administration of the schools, in that Buffalo provides special training for the apprentice boys, and in office work provides advanced training for the girls.

Nevertheless the points of similarity are greater than the points of difference. The bulk of the instruction must be suited to the capacity of seventh and eighth grade pupils. The comments selected from the replies of the Boston pupils would match those which might be made by the slightly older pupils of Buffalo.

TYPE GROUP, 16-17 YEARS OLD, COLUMBUS, OHIO

Now let us insert into the picture a group of 192 sixteen to eighteen year old girls who were in the continuation school in Columbus, Ohio, during the school year 1923-24.¹ Columbus has a population of 237,031. The 16-18 year old girls were distributed as follows:

Total number	2,688
Enrolled in regular classes	1,812
Out of school	876
Work certificates granted	560
Enrolled in continuation classes	225
Included in this study	192

Under the Ohio law practically no pupils under sixteen years of age or under the seventh grade (except a few

mentally incapable) are released from day school. Then, if the school board makes the option, and establishes continuation schools, young workers of the 16-18 year group are required to attend continuation school not more than eight hours a week. It is to be noted that although the Columbus school board organized such classes in September of 1921, two years later the group of 876 girls out of day school contained only 560 who had employment certificates, and 225 enrolled in continuation school. This situation is typical of Ohio cities and of practically every other state in which the compulsory establishment of continuation schools and a rigid enforcement of compulsory attendance at these schools are lacking.

The material which follows contains the essential findings of a survey by H. M. Appleman and describes the educational and home background of a typical group of working girls of this age group.

SCHOOL ATTENDED AND GRADE DISTRIBUTION OF ONE HUNDRED NINETY-TWO GIRLS IN THE COLUMBUS PART-TIME SCHOOL—1923-24

School	Grade							Total
	6	7	8	9	10	11	12	
Public	6	10	41	50	35	10	4	156
Parochial	2	0	10	5	4	0	1	22
Outside of city	0	0	4	3	3	4	0	14
Total	8	10	55	58	42	14	5	192

This shows 64.1% with 7-8-9 grade education whereas Boston had from the same grades of 14-15 year olds 81.5%; and Buffalo had from the same grades of 14-15-16 year olds 84%.

Thus even in the highest age group of the continuation school there is a very large percentage of pupils whose educational preparation is essentially the same as that of the younger age group. On the other hand,

the percentages of those who had more than ninth grade schooling—in the Boston group 18%, in the Buffalo group 16%, in the Columbus group 36%—shows the presence in the oldest group of a distinctly large percentage who need instruction of high school standard.

From here on we cite almost verbatim from Appleman's report. As regards general intelligence, he says that among the ordinary class of school children 1% would be in the group called Genius. In the group under survey, there are none; two pupils or about 1% are very superior as compared with 6% in a normal group; eighty-four children or 44% are normal when we should expect to find 60%; 27% are dull and 4% are classed as feeble-minded. According to this test these children, as a whole, are below the usual groups of school children in intelligence.

PERCENT DISTRIBUTION OF PART-TIME GIRLS, HIGH SCHOOL PUPILS, AND THE NORM FOR THIS TEST

Interval	Percent Part-Time	Percent High School	Percent Norm for This Test
140 & above	0	0	1
125-139	1	2	6
115-124	3	11	13
85-114	44	77	60
75-84	27	7	13
60-74	21	3	6
Below 60	4	0	1

A study of this tabulation indicates that the part-time girls are somewhat below the average of pupils in the three high schools and considerably below the norm for the test.

The table on the next page gives a summary of the results of the Thorndike-McCall reading test.

The reading quotient intervals are those established by the authors of the test in the examination of 5,000

SUMMARY OF RESULTS OF THORNDIKE-MCCALL SILENT READING TEST

Reading Quotient Interval	No. of Pupils	Percent of Pupils	Interpretation
Below 55	3	1.6	Very exceptionally inferior
55 to 64	25	13.8	Exceptionally inferior
65 to 74	47	26.0	Very inferior
75 to 84	73	4.2	Inferior
85 to 94	30	16.0	Low average
95 to 104	1	0.5	Average
105 to 114	1	0.5	High average
115 to 124			Superior
125 to 134			Very Superior
135 to 144			Exceptionally superior
145 and over			Very exceptionally superior

children from grade II through VIII, and the interpretation is the description of the various reading abilities as used in this test.

It is evident that these girls do not comprehend the things they read. In this part-time school reading has been regarded as a preparation for spending leisure time in a profitable way. The findings noted in the tabulation indicate a very poor basis for such work and these pupils need careful diagnostic testing and treatment in order to correct such faulty comprehension. When 164 pupils in this group rank as "inferior" or below, certainly one would be justified in the belief that rather emphatic remedial treatment needs to be made in the teaching of reading to them.

One hundred twenty-four of these girls have both parents living. In thirty-two cases the father is dead and in nineteen, the mother. Sixty-two of the one hundred seventy-five homes are broken. This means that for some cause, death or disagreement, the home is not being conducted as a normal home should be. Since in fifty-one cases, the father or mother is dead, there are

eleven homes in which some other cause operates to break it up.

The parents of seventy-six of these girls or 43.7% own their home; that many, at least, are in such economic condition as to hold the property in their own name. This makes a very favorable showing with the city as a whole, for only 36.6% of the people in Columbus own their homes.² One hundred twenty gave their church membership; seventy-seven belong to Protestant churches; forty, to Catholic; one is a Seven Day Adventist; and two are Jewish. Twenty others do not belong to any church and thirty-five did not answer the question.

In regard to nationality, nearly all of these girls are born of native parents. Indeed, those of foreign parentage were all born in America except six. Of the one hundred ninety-two girls, the parents of one hundred seventy are native Americans; this is 89.4% of the group. It is a larger per cent. than is shown in the general population of the city for there the native white population is 83.8% of the whole.³

REASONS FOR LEAVING SCHOOL

Columbus, O., Girls, 16-18 Years Old

	<i>Number</i>	<i>Per Cent</i>
Financial pressure	75	44
Discontented with school	28	17
Failure in school	4	2
Did not like teachers	12	7
Behind in studies	4	2
Wanted business course	4	2
Wanted to work	26	13.5
Out for vacation. Did not return.....	4	2
Parents wish	2	..
Classmate withdrew	1	..
To study music	1	..
Illness	7	3.6

The per cent. leaving, due to financial pressure, is not quite as high as a survey of similar cases in Iowa

revealed.⁴ Out of 4,913 children leaving the schools there, 2,491 or 50.7% claimed financial pressure as the cause. Twenty-six of these part-time pupils just wanted to go to work; this is 15% as compared with 9.85% in the Iowa survey referred to above. Forty-eight of these children were behind in their studies or dislike school or the teachers. They indicated that they were not making a success of the work and cordially disliked it. Indeed, a study of the statements made by these children confirm the opinion expressed by Wolfson in the article referred to above, namely, "The more one studies the child labor problem—it is a problem of a stagnant School Curriculum . . . of minds over-fed with indigestible material and of souls under-nourished in their craving for adventure and real preparation for the lives they are to live."

When the 24 hour day was distributed into time devoted to work (excluding lunch time), recreation, sleep, and meals, it appeared that the time spent in recreation was 63% of the time devoted to work.

The total time for recreation in each case is very large and indicates that there are many hours that might be used in some profitable way.

A personal record of expenditure of income was kept by 130 girls for four weeks. The summary tabulation is as follows. On an average income of \$11.30 a week the distribution was as follows:

Board	\$.92	Hair Cut	\$.60
Insurance .....	.47	Church .....	.84
Savings Account...	.41	Magazines .....	.62
Lunches .....	.57	Powder .....	.66
Car Fare	1.49	Cream .....	.38
Shows	1.10	Candy .....	.99
Ice Cream .....	.64	Extra .....	.74

One hundred thirty girls report their salary. Their total earnings are \$1411.93 or an average of \$11.30 each.

The highest wage paid is \$18.94 per week and the lowest for an industrial worker is \$5.00. Ninety-two girls report that they pay on the average \$4.90 per week for board. Eighty-four gave \$21.52 for church and in that same week 110 paid \$63.52 for shows. Powder, cream, candy and ice cream have a large place in their expenditures.

A DESCRIPTION OF A TYPE GROUP OF Y. W. C. A. GIRLS

In Buffalo,⁵ New York, during the period January to December, 1924, girls were recruited by the Y. W. C. A., but where the classes numbered more than ten pupils, they were cared for by the Board of Education. Excluding 9,715 girls listed for attendance at swimming, recreation, gymnasium, dancing, and bowling, there were 1,555 who were enrolled in other classes. Of this group only 67 or 4% took commercial work; about one-third of the group, 543, took work in home economics; the remaining girls approximately two-thirds of the entire group engaged in studies of a distinctly cultural type. The figures suggest a vivid picture. Thus, 40 girls of whom more than half were between ten and twenty years of age went in for æsthetic dancing. Bible study was pursued by 165 of whom two-thirds were under twenty years of age and not more than 3% were married. Book reviews interested 29, all between twenty and thirty years of age, with a very small percentage of married women. China painting enrolled 32 of whom one in ten was married and one in fifty under twenty years of age. Current events attracted 154, evidently a mature group, divided on either side of the thirty year age line. The young workers come into the picture again with 24 under twenty years of age enrolled for dramatics, and 13 for elocution. English is taken

seriously, with 184 enrolled of whom half are in the 20-30 age group. Etiquette is elected by 20, and only 4 are under 20 years of age. One wonders why, because in the part-time schools the younger girls are eager to improve themselves in manners. Italian Renaissance interests six pupils, all over thirty years of age. A course of personality recruits its entire membership of 32 from the 20-30 year age group, and of its members 85% are unmarried. Religious education enrolls 88, but none of these are under twenty years. The ukelele course has 134 members divided between the under twenty and under thirty age groups.

In the home economics group of 543, about one-fifth (102) took work in basketry. Not more than two per cent. of these were under twenty years of age and half of the group were married. The same description applies to the 211 who took dressmaking and to the 203 who took millinery. These are the girls who practice thrift in acquiring well-made attractive hats and gowns, and the young mothers who enjoy getting away from household cares for one or two evenings a week and who satisfy a love for handling beautiful fabrics and for dainty handicraft while exercising a prudent control of the household budget for clothing.

Altogether it is a stirring picture of young American womanhood. They dance and play the ukelele; they study the Bible and consciously improve their diction and their manners. And as a group they show a decided interest in studies which are neither vocational nor utilitarian.

A DESCRIPTION OF A TYPE GROUP OF FACTORY WOMEN

During the winter 1919-20 a survey of women employed in factories at Indianapolis was made under the

direction of Russell C. Lowell, Vocational Director of Indianapolis Public Schools. Mr. Denman Kelley of Terre Haute Normal School tabulated the results and submitted a synopsis of the findings from which the following points are taken. The charts also are copied from Mr. Kelley's interesting survey report.

These women were employed in six factories: a meat packing plant, a company manufacturing gasoline engines, a candy factory, a manufactory of glazed and ornamental tiles, a manufactory of men's clothing, and a company producing proprietary and pharmaceutical remedies. The total number of women interviewed numbered 412 of whom 371, or 90%, in answer to the question "Do you desire to continue your education?" replied "Yes." Admittedly the question was vague, and the heavy affirmative answer should be discounted. Nevertheless it appears that a great majority of these women were really desirous of gaining some additional education.

They were asked to indicate which studies they would like to pursue, by checking a list. The choice varied somewhat in the different groups but in general the tabulation of all the answers gives a fair indication of the distribution of their preferences. The length of the horizontal bars in the following chart (Chart A) is proportional to the number of times each subject was designated as being desired.

The interest in English is probably explained by the fact that in a great many cases this meant business English to these people. Among working girls of this age there is considerable opinion, also, that the ability to use better English increases their prospect of associating without embarrassment with people of a desirable social class, as well as of improving their chances for promotion.

They frankly look forward to marriage as soon as

CHART A

LINES IN WHICH WOMEN EMPLOYEES DESIRE FURTHER
TRAINING IN SIX INDIANAPOLIS FACTORIES

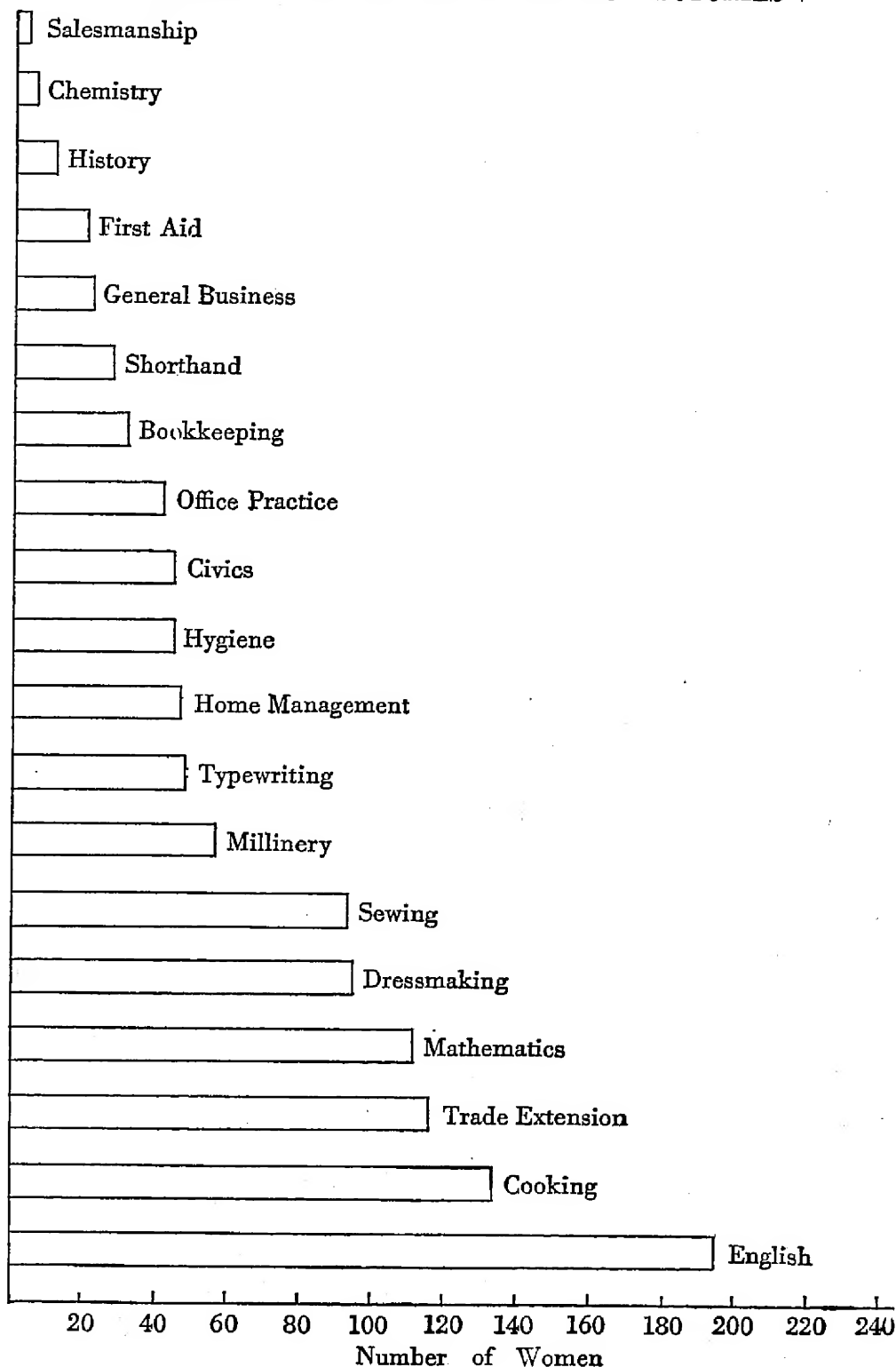


CHART B

AGES OF WOMEN EMPLOYEES IN SIX INDIANAPOLIS
FACORIES

The median age is 20.8 years and the range of the middle 50% is from 18.7 years to 24 years.

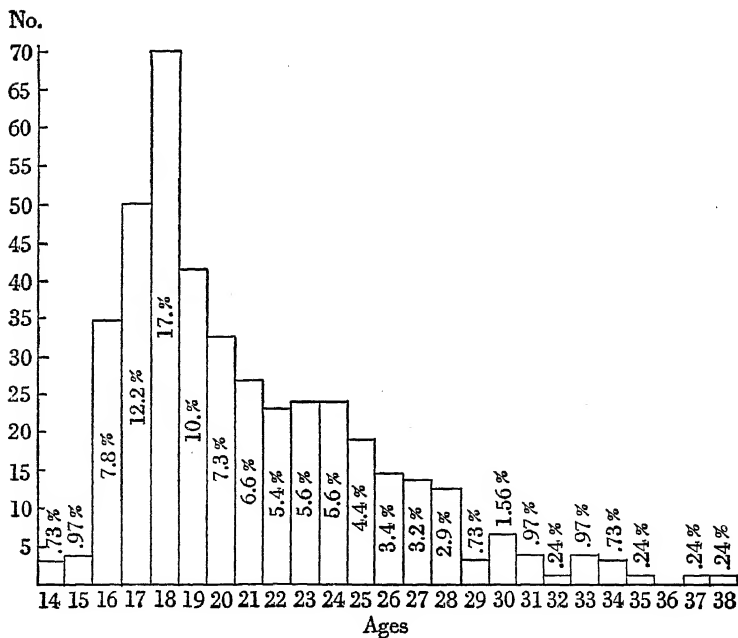


CHART C

NUMBER OF EMPLOYEES COMPLETING EACH GRADE IN
SIX INDIANAPOLIS FACTORIES

Approximately 34% were one year or more retarded.

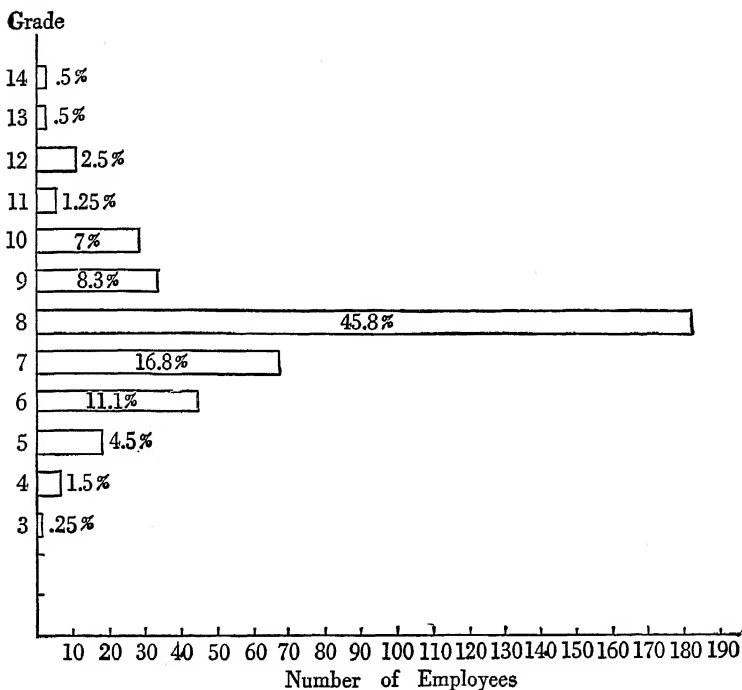
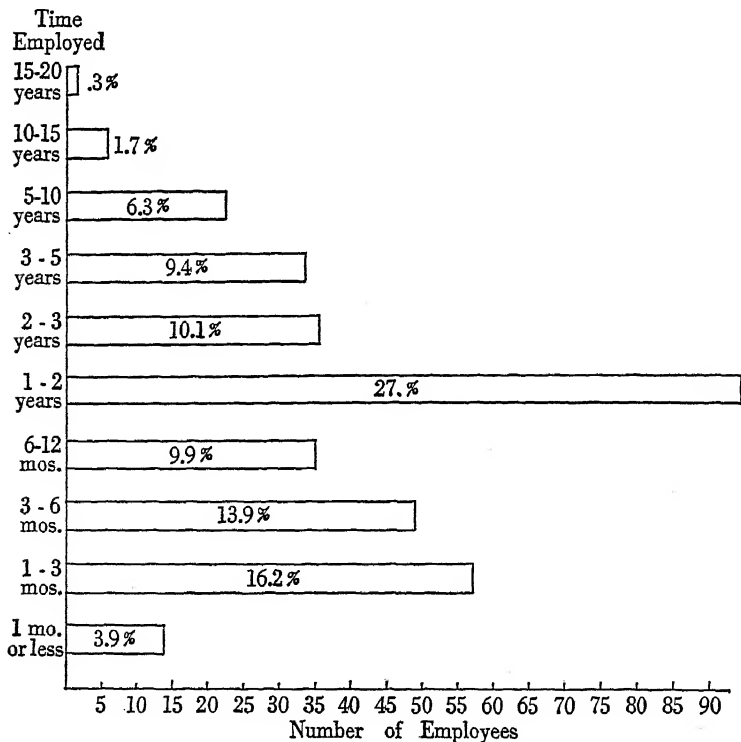


CHART D

LENGTH OF TIME WOMEN EMPLOYEES HAVE WORKED IN
FIVE INDIANAPOLIS FACTORIES

The median is 1.18 years and the middle 50% is from 3.28 months to 2.3 years.

70.9 % do not remain with the factory more than two years.



possible, hence their interest in the home-making subjects. To a limited number of this group commercial subjects appeal as a means to a more desirable type of work.

Most of these girls, 60.9%, are between 16 and 21 years of age, as shown in Chart B. In previous schooling most of them, 89%, are in the range from the sixth to the tenth grade, as shown in Chart C. The larger part, 79.7%, have not more than an eighth grade education, but an important group, 19%, have already had some high school work.

The fact that it is a group of young workers is shown not only by the steadily diminishing size of each year's quota above 24 years, in Chart B, but also by the numerical drop off with increasing years of employment as shown in Chart D. This chart also indicates labor turnover, since it shows the length of time employees have worked in the plant. The two charts, A and D, give typical evidence as to why educational opportunities for girls in home making and commercial work flourish, and why opportunities for specific factory instruction languish. The commercial girl can carry her training from one job to another. The home making girl is preparing for her chief aim in life, to establish a home of her own. But the girl who leaves a factory job to take another factory job knows that she can carry very little of the training for the first job over to the second, and knows further that the very few days of training needed for the second job will be provided in the factory. So she is not interested in opportunities for factory training in schools.

TYPE GROUP—APPRENTICES

These are apprentices in various building trades in Cleveland, Ohio.⁶ Their numbers are:

172	Bricklaying apprentices
108	Plumber apprentices
65	Painter apprentices
130	Electrician apprentices
<hr/>	
475	Total

Their previous schooling records show that 8% had less than seventh grade; 13% completed seventh grade; 38% completed eighth grade; 15% completed ninth grade; 13% completed tenth grade; 8% completed eleventh grade; 6% completed twelfth grade. That is three-fifths had no more than elementary school education.

The father's occupation influenced the boy's choice, since two-thirds of the fathers of the bricklayers, two-thirds of the fathers of the painters and one-third of the fathers of the plumbers were in building trades. But the fathers of the electricians were scattered in sixty different occupations and only one-fourth were in building trades and one-sixteenth in electrical work.

Their desire for further education was indicated by the fact that at least 5% took correspondence courses and 30% took evening school courses. Practically all the courses taken were strictly technical. The only exceptions were that one boy took civics, one history, one literature, and about twenty-five took business English, which, in a way, is technical.

The reasons given for leaving day school were:

Economic necessity	32%
Wished to learn a trade or go to work.....	27%
Not interested or disliked school	11%
Graduated or thought he had enough education.....	7%
Other reasons, or none	23%

This group of apprentices shows several points of difference from the other groups described. The amount of previous schooling, 40% above eighth grade, is higher

than for the other groups. The fact that more than one-third of them enrolled for post-school education is remarkable. In the reasons given for leaving day school, the percentage of expressed dislike for school is relatively low. Young workers in general select the greater part of their evening school studies from the vocational and utilitarian, but they also choose a small amount of general or cultural studies. These boys are practically one-hundred per cent. technical in their choice. On the whole they give the impression of being a rather superior lot of boys who know exactly what they want. If this is the type of boy who does achieve that goal desired by most working boys—the chance to learn a good trade, the group description is additional argument against the practice of using vocational education classes as a dumping ground for undesirable boys.

TYPE GROUP—THE GENERAL EVENING HIGH SCHOOL— ACADEMIC AND COMMERCIAL ⁷

The evening school sets no upper age limit for enrollment. The impression prevails that the evening high school student is an elderly person who has returned to school because of a realization of the need of further education for success in life. In part this is true, but only in a very small part. Let us stand in the corridor and observe the students as they leave at the end of the session. Here and there we see an older person sedately walking towards the door, but chiefly we see groups and couples—many couples—of young folks. Here and there is one in shabby clothes, but most of them are well dressed. In appearance they conform more nearly to our idea of a group of young college students than to the conventional idea of young workers. The general impression is one of youth; happy, chattering, bright-eyed, alert youth. They are well-

mannered. Some are unduly noisy but most of them are simply lively boys and girls.

Their ages range from sixteen to fifty-four. The average age is 19.5 years, and 92% of them are under twenty-four. The largest numbers in any age group come from the seventeen and eighteen-year-olds. Those from sixteen to twenty years of age are 78% of all; those from twenty-one to twenty-four years are 14%. The fact that many of these are commercial students tends to lower the average age.

Only 15% of these students left day school for financial reasons; 67% left because they desired to go to work, to take advantage of a business opportunity, to enter business college, because they had graduated from a particular course, or had lost interest in day school.

Why do they come to evening school? Of the 263 answers listed, 120 or almost half wished to "obtain a high-school education" or to "obtain more knowledge," and 44 others wished "to graduate." Only one in six gave the vocational motive "to get commercial education" and only one in thirty gave the utilitarian motive "business required further education." In answer however to the questions on what use they expected to make of their night school education 68% showed that they came to the school for distinctly vocational reasons. A large number, 34%, were preparing to enter some profession and wished to qualify for entrance requirements to schools of law, dentistry, pharmacy, and the like.

They are about evenly divided on the question whether they prefer night school or day school. An analysis of the preferences for day school shows that about 92% of the preferences are based on the belief that the day school furnishes a more thorough education, that there is more time for study, that the strain is not so great, and that more attention is paid to de-

tail. The reasons for preference for night school are scattered. About one in four who preferred night school did so because it combined the possibility of getting an education and of helping to support the family. A large number of reasons such as "more condensed subjects," "not so long," "too many hours in day school," "night school teaches only necessary subjects," indicate that many of the students are looking for a short-cut to an education. For those who remain and concentrate on their work, this is commendable, but it emphasizes a point of view all too common with night school students. Many of them are unwilling to buy their education at the price of hard study and faithful attendance. This fact is responsible for a large amount of the dropping out in night school membership which occurs in the first ten weeks of every term.

The group described could be duplicated in any large city. They represent the most ambitious of the young workers. Their motives are a mixture which can hardly be analyzed even by themselves. They wish to improve themselves in a general way, to acquire more social ease, to qualify for promotion in employment, to work themselves out of their present employment into one which they consider more desirable for social and financial reasons. More education appears to be the most effective means of realizing their general ambition and so they enroll for evening high school work.

TYPE GROUP—A VOCATIONAL EVENING SCHOOL⁸

It is related in the story of Hans Brinker and The Silver Skates that while the little Hollanders were skating on the canal a small English boy who was visiting his Dutch cousins rushed to the bank of the canal, purchased a hot doughnut from a vendor and crammed it

into his mouth. Thereupon an observant tourist carefully wrote in his note-book that little Dutch boys are very fond of potatoes boiled in molasses which they eat in enormous mouthfuls.

There is danger of similar error in attempting to deduce too much from available information on evening school students. Our educational researchers have indexed and cross-indexed the factory child, but they have almost entirely neglected the evening school student. Therefore the thrill of finding an authentic study in this field is like that of finding a nugget of gold in a gravel bank; yet this description of vocational evening school students needs to be substantiated by further studies. Other towns might show very different conditions.

Part of the students are members of federally aided classes in Cincinnati and others are in so-called vocational classes. They are in such subjects as architectural drawing, cabinet making, shop mathematics, cooking, millinery and interior decorating. Their ages range from 15 to 56 years. There is a strong belief among evening school administrators that vocational students are decidedly older than academic or commercial students. Yet this group averaged 20.9 years as against 19.6 years for the other group, 76% were under 22 years of age. Only 15% were married. The surprisingly large proportion of 69% had had schooling above the eighth grade. This is a striking illustration of how the Ohio law requiring the completion of eight grades, has raised the standard of education among young workers.

Only 8% gave financial need as the reason for leaving day school. The chief reason given was the desire to go to work which accounted for 45%.

In contrast to the previously described group of academic and commercial students they evidence a singular lack of general or abstract motive for attending

school. Thus, 67 wished to make their own clothes, 19 to learn interior decorating, 18 to learn millinery and 10 to learn electrical theory. There was evidence of a similar directness of purpose in the type group of Cleveland apprentices.

They come from a great variety of occupations. One-fourth are clerks, one-eighth are stenographers, one-sixth are "at home" or are housewives. These three groups account for more than half of the total. The rest are scattered among 39 different occupations, including such non-technical occupations as presser, timer, nurse and upholsterer. That is, this group is typical of those in many classes which are popularly labeled "vocational." Some of the members are seeking a means of entry into another line of work. For them the work is truly vocational. Many of the women who work as stenographers, housewives or labelers seek work which will make them more efficient in their present or ultimate vocation as home makers. A carpenter takes a course in architectural drawing, a window-dresser takes one in interior decorating. For all these the work is vocational. But a baker may take a wood-working course because he likes to make articles of furniture for his home, or a clerk may take a course in commercial art through sheer love of such work. For them the work is not vocational. In another city or in other classes in this city, instances will be found where for practically the entire group there is a very close relation between courses pursued and daily occupation.

The relative lack of such relation in the group described is shown by the fact that less than one-third of them said that the school work was helping them in their business and fully half of them said positively that it did not.

The interest of employers in the further education of their employees in this group is suggested by the

statement that in 40% of the cases the employer knew that the pupil was attending night school, in 14% he requested that they attend, and in 7% he made promises of future promotion if they would attend.

This group was asked to express a preference between attending a trade school where the work was strictly technical and attending a cosmopolitan high school of the kind in which they were then enrolled. The preference of 80% was for the cosmopolitan high school. Of course one would expect a similar degree of unanimous choice for the trade school if the question had been asked in that place. The reasons for this choice are interesting. Of those who preferred the cosmopolitan high school 54% did so because they were satisfied with the course and the school, 25% liked the convenient location and 15% liked the offering of academic subjects with the vocational.

When however they were asked whether they would be willing to attend four nights each week instead of two in order to take academic subjects, only 17% were willing. One-fourth of them were "too busy"; slightly more than one-tenth were already attending other classes; others found the distance too great; they expected to study those subjects next year; or they wanted recreation.

This evening school maintains a glee club and a school paper and at times offers social dances. Only 18% of these pupils participated in such school activities, and these chiefly for recreation. Lack of time was the reason given by 30% for not participating and 46% either did not answer the question or gave lack of interest as the reason.

One-third of them like to go to the auditorium for special exercises. The most common reason for not liking to go to the auditorium is that they lose too much time from class work.

TYPE GROUPS—MOTIVES AND MORTALITY IN EVENING SCHOOLS

There is very little evidence as to the motives which lead pupils to register in evening schools, to pursue certain courses there or, in the case of a large percentage, to drop out during the term. Almost no direct statistical evidence has been gathered, and any attempt to interpret general statistics is liable to serious error when done by one not intimately acquainted with the method by which local statistics are tabulated. Special studies in this field are needed. Therefore such apparent facts as the writer has been able to obtain are presented here with reservations as to their general applications.

In evening schools the heavy drop-out in the first weeks of the term is illustrated by the figures for Buffalo at the end of the ninth week, November 12, 1924. The 24 elementary schools reporting had lost 26% of their registration; a citizenship group of about 300 had lost 35%, three high schools 26%, and four men's vocational schools 30%. The total registration of almost 23,000 had lost 27%. Meantime on remaining registration the percentage of attendance for the week was 83% for the elementary, 85% for the citizenship and 79% for the vocational schools.

The relative demand for different types of evening school opportunity is roughly indicated by the fact that of the initial registration approximately 60% was in the elementary schools, 30% in the high schools and 10% in the vocational schools. These figures should not be wrongly interpreted to indicate a relatively small demand for vocational work, since the elementary and high schools devote a large part of their courses to household arts work and commercial courses.

Pupils' reasons for attending evening school were checked by a special study made in Buffalo during the

school year 1920-21. These reasons are tabulated on a percentage basis below for these four groups, pupils in vocational high schools, in other high schools, in elementary schools and in all schools.

	Voc. H. S.	Other H. S.	Elem. Sch.	All Sch.
To prepare for better positions.	62.0%	23.0%	3.8%	20.0%
To prepare for higher institutions	0.0%	4.5%	0.5%	1.4%
For general culture	2.7%	19.0%	6.0%	6.5%
For self-improvement	27.0%	57.0%	44.4%	45.8%
For mastery of English	6.0%	2.4%	26.1%	19.0%

On the above tabulation it is to be noted that the predominating motives for vocational students were to prepare for better positions or for self-improvement. In the other, that is, the general, high schools, the three chief motives were to prepare for better positions, general culture and self-improvement. It is surprising that preparation for a higher institution registers such a small percentage in this group.

The percentages for the elementary schools are undoubtedly largely influenced by the large number of Americanization students whose chief motives are self-improvement and mastery of English.

In an effort to determine whether the pupils were adapted to the courses and were making progress in studies the following tabulation, based on the estimate of the teachers, was made:

<i>Adaptation of Course</i>		<i>Progress in Studies</i>	
	<i>Percent</i>		<i>Percent</i>
Very good	4.4	Very good	4.8
Good	58.0	Good	55.2
Fair	21.8	Fair	22.1
Poor	5.3	Poor	6.4
Entirely unfitted	1.7	None	2.5
Time too short	7.0	Time too short	6.9
Not accounted for	1.8	Not accounted for	2.0

The first column shows the percentage distribution as to whether the pupil was adapted to the course; the

second column shows progress in studies. It is important to note that this tabulation does not deal with the approximately one-fourth of the registered pupils who dropped out. Of course important reasons for dropping out were that the pupils were not adapted to the course or were not making satisfactory progress.

The relative demand for different kinds of work in evening schools on a wide scale is shown by the report of New York State for the year 1920-21.⁹ In a total evening school registration of 200,000 different persons, one-third (33.7%) were in classes for immigrants; a little more than one-fifth (22.7%) took academic subjects in high schools; about one-fifth (19.5%) were in commercial classes; one-fifth (20%) were in industrial and home-making classes combined (11.1% and 8.9% respectively); and only 4.1% were in elementary or common branch subjects. Three-fifths (60.5%) of the students were in strictly academic subjects, including classes in elementary English and citizenship for immigrants, common branch subjects of grammar grade and academic subjects such as high school work.

A question immediately arises however as to whether this real demand is identical with the dormant demand. The tabulation shows that classes for immigrants are most widespread, followed by commercial, home-making,

	No. of Cities or Villages in State	Immi- grant Educa- tion, Elemen- tary English and Civics	Elemen- tary Subjects of Gram- mar Grade	Aca- demic Sub- jects of High School Grade	Com- mercial	Indus- trial	Home- making
Cities...	58	54	23	19	33	28	29
Villages.	55	31	2	1	9	2	4
Total..	113	85	25	20	42	30	33

industrial, elementary and academic high, in the order named. Now the last two types are the only ones which do not receive special state or federal aid. Anyone familiar with school affairs knows that there is a general tendency to recruit for classes receiving such aid. It would be an interesting experiment to arrange for extra financial aid especially in high school academic subjects or general cultural subjects, and also especially in smaller towns or villages, and thus to learn whether there is a dormant demand for these subjects which would respond to increased offerings and a reasonable amount of recruiting in this field.

The relative demand for subjects as shown by enrollment, largely elective, of students in New York State registered evening high schools for the year ending July 1921 is here given for fourteen schools in New York City.⁹

	<i>Number</i>	<i>Percent</i>
English* 1, 2, 3, 4	7,520	11.4
Latin 1, 2, 3, 4	936	1.4
French 1, 2, 3, 4	2,532	3.8
Spanish 1, 2, 3, 4	5,311	8.0
Pure mathematics	5,516	8.3
Pure science	3,803	5.7
History and Civics	3,462	5.2
Economics	1,008	1.5
Commercial	28,993	43.9
Drawing	2,031	3.1
Music	687	1.0
Home-making	3,076	4.6
Physical training†	1,283	1.9
	<hr/> 66,158	<hr/> 100.0

* Required.

† The list of subjects tabulated covers only 58 of the 80 most popular courses enrolling students.

These students, with the possible exception of commercial pupils, are not choosing their subjects with reference solely or even largely to their interest in a given subject. Most of them are working for a definite objective, chiefly to get an evening high school diploma, or to enter a school of dentistry, pharmacy, law, etc.

This group from the "registered" evening high schools of New York City is compared with the group from the equivalent "standard" classes in Englewood Evening High School of Chicago in the following tabulation:

	New York City	Chicago ¹⁰
Commercial Subjects	43.9%	38.8%
Industrial and Home Economics	6.3%	10.3%
General Subjects	49.8%	50.6%

On a wider basis, comparative demand is shown by this tabulation:

RELATIVE DEMAND, PERCENTAGES FOR SUBJECTS IN EVENING SCHOOLS

	Ameri- caniza- tion	Indus- trial	H. Econ.	Ind. & H. Econ.	Comm'l	Gen'l
1. Philadelphia H. S. . . . .	.....	21.8%	22.9%	44.7%	33.0%	22.3%
2. Cleveland H. S. . . . .	.....	.....	.....	45.8%	27.7%	26.6%
3. New York State	33.7%	11.1%	8.9%	20.0%	19.5%	{ 22.7% H.S. 4.1% Elem.
4. Joliet, Ill.	17.6%	28.0%	12.3%	40.3%	21.0%	20.8%
5. Chicago H. S. . . . .	.....	27.8%	21.8%	49.6%	27.2%	23.2%

1. Phila. Statistical Reports 1923-24—Table 33.

2. 4,671 pupils in 1924-25.

3. 200,000 pupils in all evening schools, Univ. of State of N. Y. Bull. 774, p. 205.

4. Based on 1923-24 total enrollment.

5. All high schools. Rept. of Supt. for 1921-22.

From all the foregoing it would appear that among the young people who form the bulk of the evening school pupils, the desire for general or cultural improvement is a strong motive with from one-fifth to one-fourth, and in the academic high school it runs up to one-half. We cannot determine, however, to what extent this desire for general improvement is traceable to love of learning or to what extent it is traceable to a utilitarian desire to improve their social and employment status.

One of the discouraging facts in evening school enrollment is the tremendous wastage that occurs, especially in the first ten weeks of the term, through the

drop-out of enrolled pupils. Some of it is inevitable because of weather conditions, shifts in employment or demand for over-time work, or combinations of fatigue and illness. We do not know how much of it is traceable to lack of guidance in initial registration which results in placing pupils in courses not suited to their desires or ability.

Part of the wastage was formerly due to the enrollment chiefly of fourteen and fifteen year old students and of some older ones who had no serious intention of continuing. This is now avoided, sometimes by restricting enrollment to those over sixteen years, sometimes by requiring a small money deposit, returnable at the end of the term to those whose attendance was satisfactory, and sometimes by charging a tuition fee. Part of the wastage may be justified on the ground that at any rate the individual was offered an opportunity, and the failure to use it was due to his action rather than to that of society. Nevertheless, a serious item of wastage remains whether measured in terms of money costs or in terms of thwarted effort.

The following are typical situations as regards drop-out from evening schools:

RATE OF DROP-OUT IN EVENING SCHOOLS BY ACTUAL TABULATION

	A	B	C	D
Buffalo (1924) at end of 9 weeks, approximately 18 sessions....	26.0%	35.0%	26.0%	30.0%
Philadelphia (1923-24) at end of 19 sessions	39.8%	45.7%	.....	55.3%
Chicago (1921-22) at end of 19 sessions	28.2%	27.0%	40.0%	.....

- A. Elementary schools, including Americanization, in Buffalo, but not in Philadelphia or Chicago.
- B. Citizenship in Buffalo and Chicago; Americanization in Philadelphia.
- C. High schools, Buffalo and Chicago.
- D. Vocational schools, Buffalo; evening trade schools, Philadelphia.

Other ways of approximating relative drop-out are to get the ratio of annual per capita costs on total registration to costs on average attendance; or to get the ratio of average number belonging or of average attendance to the total registration. These items for typical cities are tabulated as follows:

	A	B	C	D	E	F
United States, cities of 10,000 and over (1922)...	\$ 7.62	.....	.....	.....	.....	.....
Boston (1924) .....	.....	\$25.99	.....	52.5%	41.6%	79.3%
Chicago (1921)	9.62	25.08	38.5%	.....	.....	.....
Washington, D. C. (1921) ..	8.31	14.81	56.1%	52.9%	.....	78.0%
Philadelphia (1924)						
High .....	.....	.....	.....	.....	44.4%	.....
Elementary .....	.....	.....	.....	.....	37.1	.....

- A. Per capita cost on total registration.
- B. Per capita cost on average membership.
- C. Ratio of A to B.
- D. Ratio of average membership to total registration.
- E. Ratio of average attendance to total registration.
- F. Ratio of average attendance to average membership.

From the first tabulation it appears that there is a loss of at least one quarter in the first twenty sessions of the term. The second tabulation, which covers the entire term, shows a considerable further loss. Probably the ratio in Column E of approximately 40% attendance based on total registration represents a fair maximum of efficiency for present-day evening schools.

Remedies for improvement are:

1. Revision of courses to meet the needs and ability of students.
2. Training of teachers so that they will not blindly use day-school material and methods in evening schools.
3. Use of more short unit courses.
4. Reducing the size of classes so as to permit of more individual attention. The 1922 class enrollment was 42. pupils per teacher.
5. The introduction of much more effective guidance in enrolling pupils.

TYPE GROUP—VERY YOUNG CHILDREN IN CITIES

The cities present a social menace¹¹ which comes from the employment of very young children in street trades. Information on more than 4,000 such children was secured by the U. S. Children's Bureau in Wilkes-Barre, Pa., Columbus, O., Atlanta, Ga., and Omaha, Neb. Only fourteen States and the District of Columbia have laws requiring children selling papers or doing other work on the street to secure permits or badges, and only ten have State-wide laws affecting boys engaged in independent street work. In consequence many little boys and some girls under 12 years of age sell papers or practice bootblacking not only during the day but late into the night; others "hop off" huckster wagons, tend to market-stands or peddle flowers, candy, gum, etc. Strictly speaking, these children do not come into the group covered by the present report because they are supposed to be school-children. In Wilkes-Barre, Pennsylvania, 605 such children under 16 years of age were reported. In spite of the fact that the Pennsylvania State law prohibits selling for boys under 12 years of age and bootblacking for boys under 14 years of age, more than one-third of these Wilkes-Barre children were under 12. Thirteen per cent. of the street workers reported that they were out on Saturday nights at least until 10.00 o'clock. In Columbus, Ohio, an equal proportion, 5%, of the school population under 16, were engaged in street work, and one-fifth of the newspaper sellers were under 10.

The control of this matter is a school problem rather than a Department of Labor problem. The situation arises because even where controlling laws exist, the responsibility for enforcing the law is not definitely fixed or actively required. Any district which sincerely desires to stop this traffic can do so almost over night

by making school attendance officers responsible. The issuing of badges by school principals and a vigorous demand for the display of these badges by street workers on the part of attendance officers give complete control of conditions.

TYPE GROUP—THE BOY OF THE SMALL CITY ¹²

Sandusky, Ohio, is a typical small city of the Middle West. It has a population of about 20,000, and is one of the older Ohio towns. Most of the boys and girls are able and willing to continue at the big modern high school. A few dozen go to work in stores or factories.

Out of 27 boys questioned there were two who quit in the seventh year, eight in the eighth year, seven in the ninth year, nine in the tenth year and one in the eleventh year. In percentage they would run 7—7.4%, 8—29.6%, 9—25.9%, 10—33.3%, 11—3.7%. Nineteen or 70% of them quit school because they didn't like it. The rest quit school to learn trades. There are some among this last group who were helped into their decision by their dislike for school.

When asked what studies they liked best, the answers were as follows: 25.9% liked Arithmetic best, 18.5% Science, 14.8% Woodworking, 14.8% History, 7.4% English and the same for Geography.

The subjects that they liked the least were:—41.8% disliked English, 25.9% Arithmetic, 7.4% Civics, 3.7% History and the same for Latin.

About two-thirds of them have had library cards at some time or another and about one-fourth still have them. Of these only about half use their cards at all. The ones who still have their cards draw mostly books of fiction with a strong taste for adventure.

About half of them read magazines of any description. Outside the ones they read in school, these are

mostly Popular Mechanics, Popular Science, Hunting and Fishing and Boys Magazines. Very few of them read the trashy magazines. More of them do not read anything.

The subjects that they would like to study in continuation school are: Carpentry, auto-mechanics, plumbing and radio. Outside of arithmetic and science they are not the least bit interested in school subjects.

TYPE GROUP—16-21 YEARS OLD IN METAL-WORKING INDUSTRIES ¹³

Less than 1% of this group were under 16 years of age; about two-thirds were between 19 and 21; 91% of them are males. Unless otherwise specified the following description applies only to the boys: About 65% of them began work when under 18 years of age, 36% beginning during the sixteenth year. As usual they experimented on their first jobs, less than half of them beginning work in metal-manufacturing industries. They were fairly steady in employment, as 48% stayed on the first job a year or more. Shifting from job to job was more marked in the earlier years of employment than later. About 30% had better than eighth-grade education. There was some relation between school grade completed and occupation. Thus while only 67% of all the group had completed the eighth, or a higher grade, 80% of the inspectors and 70% of the machine operators had done so, as compared with 50% of the laborers and helpers. On the other hand, a study of the work done in occupations for which the completion of the eighth grade was usually held necessary showed that often this degree of general education was demanded not because it was needed in the actual performance of the job but because it indicated a level of general intelligence and mental training which the em-

ployer thought desirable in the performance of even the relatively simplest types of work. The advantage of more schooling in relation to assignment to job was also reflected in earnings. In spite of relative inexperience in the factory, the median earnings of those who had gone beyond the first year of high school were seven cents an hour more than those received by the workers who had not completed the sixth grade.

Retardation in school was strongly marked in this group, 52% of them having failed to complete normal grades for their ages. This percentage is higher than that obtained in Burdge's Study of New York Boys and in The Study of the Working Children of Boston. The Boston study using precisely the same standard showed slightly less than 33% of retardation. This is probably very largely due to the fact that Michigan laws release very few children to work before the completion of the eighth grade, whereas the Massachusetts standard is sixth grade. It indicates that retardation among children going to work may be expected to increase decidedly as legal standards are raised.

Almost 30% of the boys had taken some kind of trade-training courses. Of these almost 16% had taken such courses in day school and almost 15% after leaving day school. Exact percentages on distribution in various types of educational opportunity after leaving day school cannot be given because some did not report on this item; some are scattered and a few girls were reported. It is however fairly accurate to state that about 3.6% took such courses in public school, about 2.6% in factory classes, about 2.3% in correspondence classes, and about the same percentage in classes not specified. Three-tenths of those who reported the length of the courses taken since leaving day school had taken courses which lasted for a year or more, and over

five-sixths had taken courses extending over a period of at least three months.

On the whole the group described may be considered to represent the best type of young industrial worker.

TYPE GROUP—HIGH SCHOOL GRADUATES ¹⁴

This group should represent the best product of our public school system. About one-third are planning to go to college or higher school. Not more than half of them have reasonable prospect of success in an ordinary liberal arts college. Of those who do not plan to go to college the majority would have little chance of success there, but possibly a third of this group might succeed. A considerable number will not go on with their studies because they prefer to work, but an almost equal number are prevented by lack of funds from going to a higher school. A slightly larger percentage of boys than of girls will go to college and conversely a slightly larger percentage of girls will go to work.

If they have been in contact with good guidance agencies in the latter years of the high school course, and evening school opportunities are available, a surprisingly large percentage (33% of boys and 19.5% of girls in Boston) will attend evening school.

A considerable number, perhaps three-fifths, will state that they have already chosen their vocations in life, and investigation will show that this choice has been made on a basis of very limited experience or knowledge of facts. In this regard the brighter students, as determined by intelligence tests, do not differ materially from the others.

In spite of the fact that intellectual keenness is generally recognized as a requisite in some lines of work and as not so important in other lines, many of the students ignore this relation, with the result that some of

the dullest intend to try for the most exacting professions.

Three reasonable inferences may be stated. A considerable number who do enter college will drop out either because of failure or financial pressure. Of those who go to work, perhaps one-third have the intellectual ability and therefore the urge for further education but are constrained by lack of funds. They are potential candidates for any offering which may be made in their communities. Most of this group, whether going to college or going to work, need immediate contact with adequate guidance agencies.

TYPE GROUP—YOUNG WORKERS IN STORES

Special training for young commercial workers in American schools has from the beginning been based on the erroneous assumption that chief emphasis should be on training for such conventional clerical positions as stenography, typing and bookkeeping. Even to-day, although commercial teachers should now know better, the greater part of the instruction offered is of this kind in day schools, private commercial schools and evening schools. A survey of actual conditions in more than twenty-five cities representing every section of the United States was made in 1919-20.¹⁵ The purpose of this survey was to determine what kind of young workers and what kind of work were to be found in commercial occupations filled by boys and girls up to 18 years of age. The survey revealed that 67% of those included in these studies had a full grammar school education or better, while 84% had completed the seventh grade or more. Only 7%, however, had finished the high school course. Of those who entered high school 53% finished only one year; 28% left at the end of the second year; and 12% remained through the third year.

Three points stand out: Instruction in commercial subjects below the eighth grade is not worth while; day school instruction designed to register with those who really take juvenile store positions should concentrate in the ninth and tenth grades; a considerable amount of instruction must be given in part-time and evening schools after the young people have left day school.

Less than half (45%) had received some business training. Of these about one-third had been trained in high school, one-eighth in private business schools, one-fifth in continuation schools and the remainder in junior high schools, evening schools and corporation schools. Only a negligible number had been instructed for three months or more in any subjects except business writing, arithmetic and bookkeeping, or typewriting and shorthand; yet only 14% of those who had received instruction in bookkeeping had ever been employed in bookkeeping work. Only 12% of those trained in shorthand had ever been employed as stenographers. The dominant occupation for the entire group, 14-18 years old, was messenger service. At 15 years a few began to get into the positions of general clerks, stock clerks, retail sellers and switchboard operators. This tendency became more marked during the next two years of increasing age. In the 14, 15 and 16-year group boys outnumbered girls, but in the 17-year group this was reversed.

This survey showed that not more than 2% of commercial workers under 18 years of age are stenographers. Only about 1% are bookkeepers. General clerical positions offer better opportunities for advancement than do stenographic and bookkeeping positions. In point of wages and opportunity for advancement positions such as that of time-keeper, receiving clerk, entry clerk, office machine operator, telephone girl and file clerk are fully as desirable as those of stenographer and typist.

One of the serious handicaps encountered by these young workers who have dropped out of school at an early age and who desire to get into the strictly clerical positions, is that they must compete with graduates of four-year high school courses who in general have superior intelligence, better general education and more thorough technical training. Only the best of them can endure such competition. Frank V. Thompson estimated that at least 85% of the opportunities in commerce were connected with buying, selling and handling goods as against 15% for the recording occupations. Obviously then more opportunities for training are needed for the non-clerical positions. Complete outlines for courses are easily available.¹⁶

The educational needs of the group are outlined in a recent description of sales people which is applicable to the entire group of young commercial workers.¹⁷ Most of them have an eighth or ninth-grade schooling. They have no definite vocational ambition in life. They come from the average American home where there is little inspiration of a broadening or cultural value. They regard too lightly such cultural attributes as sympathetic understandings; a broad point of view, artistic evaluations, careful use of English.

TYPE GROUPS—USE OF LEISURE TIME

This description of urban young workers would be incomplete without some account of their leisure time activities.

The first picture ¹⁸ is of the reading habits of a group of 500 men and women engaged in industrial work in a small town near Chicago. Some attended the local evening school, others became interested through the business agent of a local union. In response to 500 questionnaires, 410 answers were received, 294 from men

and 116 from women. The men represented 24 and the women 10 industrial occupations. All were industrial workers except 42 clerks. Nine-tenths of them were citizens of the United States. Of the men 3.4% and of the women 7.7% were unable to read English.

By age they were distributed as follows, taking per cents to the nearest whole number:

15 to 19 years	30%
20 to 24 years	22%
25 to 29 years	11%
30 to 39 years	19%
40 to 49 years	11%
50 and over	7%

That they keep themselves fairly well informed about the news of the day is shown by the fact that 72% of the men and 69% of the women regularly read a daily newspaper. In weekly papers they prefer fiction and read widely in labor papers, to the extent of 55% of the men and 44% of the women.

They have interest in relating their reading to their daily work to the extent of 32.5% of the men and 18.5% of the women.

Most of this group had completed at least seven grades of schooling. A rather high percentage, 45.3%, said that they liked to read books. Some of the books they listed as favorites were Tom Sawyer, David Copperfield, Ivanhoe and Ben Hur. The rest of the list of about sixty books named is with a few exceptions fairly good. Nick Carter was mentioned four times, the Alger books fourteen, and Tom Swift stories fifteen. But Huckleberry Finn was mentioned by thirteen, Silas Marner by fifteen and Tom Sawyer by nineteen.

Evidently they read for enjoyment rather than for serious study, as shown by the preferences they expressed for different kinds of books. Here is the complete list:

	<i>Male</i>	<i>Female</i>	<i>Total</i>
Adventure	18	15	33
Animal Stories	6	2	8
Educational	4	1	5
Fiction	14	31	45
History	23	13	36
Hunting Stories	3	0	3
Love Stories	5	20	25
Mystery Stories	11	8	19
Mechanical	6	0	6
Nature Stories	5	3	8
Novels	9	14	23
Radio	4	2	6
Religious	5	8	13
Science	12	2	14
Sports	21	9	30
Western Stories	18	11	29

On the whole one gets the impression of a group keeping themselves fairly well posted on current news. It would be desirable for more than about a fourth of the group to read some material pertaining to their line of work. It is notable that the monthly magazines, some good and some very cheap fiction, are much more widely read by the girls and women than by the men and boys.

The second picture ¹⁹ contrasts the habits and tastes in reading and in motion picture attendance of groups of young workers with groups which have not left day school. These groups are comparable as to age, nationality and school grade completed.

The scene is laid in Chicago in 1925. For the sake of brevity, the information is presented in Table III in the Appendix.

Before this tabulation is discussed it is well to emphasize a fact which can be substantiated by the experience of practically any continuation school teacher who served during the first two years when continuation schools were established in any town in the United States. The usual practice was to recall and enroll pupils who had been released from all school contacts

for periods varying from a few weeks to almost two years. These pupils showed to a remarkable degree the deteriorating effects of losing contact with school standards at an age when they were yet in the period of plastic youth. The majority of them had not only forgotten a large part of the reading, writing and arithmetic which had been taught them in the day schools, but they were uncouth in manners, defiant and disobedient in attitude, careless as to dress and personal cleanliness. In many communities it was impossible to do much more than to go through the motions of keeping school. Many veteran continuation school teachers now look back on that experience as a sort of nightmare. Few people realize the serious effect of this situation in giving the continuation school movement in the United States a bad start and a reputation from which it still unjustly suffers in many places.

To-day all that has changed. The problem of discipline in the average continuation school is no problem at all. The children are obedient, interested in their work, careful in dress and conduct, responsive to their teachers. Yet they are the same type of children as regards age, previous schooling, home life and employment experience. What then is the reason for the change? Simply this. That gap wherein no school contact prevails no longer exists. The children leave the day school one week and are enrolled in the continuation school next week. The deteriorating effects of employment upon plastic youth are largely held in check by the guidance and influence of the continuation school.

This fact alone fully justifies the maintenance of these schools. Our annual expenditure for school support runs into the billions. Yet formerly we turned loose the product of that expenditure, trained but immature boys and girls with no effort to safeguard it by the expendi-

ture of a little more money in the form of continued supervision. To-day we insure the product of our billions by the small sums expended on guidance agencies and continuation schools.

But though the gross deterioration is held in check, subtle influences are nevertheless at work. This tabulation proves it. Let the reader set his own standard as to what reading habits are desirable in fourteen and fifteen year old boys and girls; which magazines are worthy and which are trashy and cheap; which actor or actress habitually appears in clean comedy, healthy adventure, or gentle delineation, and which in lurid melodrama, hectic liaison, or mushy sentimentality. Then on any item check the percentage preference of the young worker with the corresponding percentage of the boy or girl not yet released from day school. Practically always the choice of the working youth reveals a cheaper taste, a greater sophistication, a less worthy use of leisure.

To ascribe all this difference to a lowering of standard which occurs when the pupil leaves school to go to work, is manifestly unfair. With the opportunity to earn money goes a certain asserted right to spend the money. This right the young worker enjoys, even though, as is the case, the greater part of his earnings are handed over to the parent. The child in school tends to read the magazines which are in the home and when he goes to the movies he usually obtains the price of admission from his parents. The veto power of the parent undoubtedly is a strong factor in controlling both his reading and his choice of pictures. The young worker has a greater or less degree of freedom from that veto power. This fact does not decrease the danger involved in the situation, but it does emphasize the point that relative opportunities rather than relative desires are at the bottom of most of the differences.

That the continuation school teachers are alert is shown by the large percentage of library cards and the amount of school reading prescribed or suggested. One fact that does not appear from the tabulations is that it is a regular practice in most continuation schools to discuss reading and motion pictures. The pupils are delightfully frank in these discussions. They may be sampling spicy wares, but they are not doing it surreptitiously. The issue is squarely on the table. As fledgling wage-earners they revel in their new-found independence and assert their right to try their wings; but as boys and girls responsive to the truth which they recognize in the teacher's dictum they are amenable to guidance.

The young workers portrayed in the second picture will in a few years be the older industrial workers portrayed in the first. Partly through the influence of continuation and evening schools, partly through the maturing effect of time, they will improve. This comparison of the two pictures shows that. But meantime there is need of definite effort to guide them in their use of leisure.

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CHAPTER XI

FACTORS AFFECTING CHOICE OF OCCUPATIONAL TRAINING BY YOUNG WORKERS

ANY discussion of factors affecting the choice of occupational training by young workers must begin with the child in the day school. As the pupil progresses through the grades, the junior high school, a selected course in the senior high school or the specialized work of a vocational or technical school, he encounters factors which in greater or less degree affect his subsequent choices in evening school, continuation school, business college or correspondence school.

Type of opportunity offered.—Undoubtedly the choice of occupation in the school by the pupil is affected by the type of opportunity offered.

Inherited ideas as to what constitutes a suitable offering still determine the equipment in many schools. This is especially true of woodworking. The day of the wooden house is rapidly passing; the wagon bed is almost replaced by the steel automobile or truck body; the steel door, the fireproof filing case, the metal rack, the linoleum floor, the pasteboard carton, the concrete pillar, sidewalk, or feed-trough, are accepted as commonplace. But we continue to offer woodwork as the chief, and frequently the only, choice in many schools.

In his study of employed boys in New York State, Howard G. Burdge found this summary¹ of shopwork done in school.

Groups	No Training	Wood Working	Miscel- laneous	Total Percent
Greater New York	39.2	54.6	6.2	100.0
Cities over 25,000	55.6	38.5	5.9	100.0
Cities under 25,000	65.7	32.0	2.3	100.0
Villages over 5,000	68.5	29.4	2.1	100.0
Places under 5,000	87.5	11.2	1.3	100.0
Employed farm boys	0.0	0.0	0.0	100.0

This table shows convincingly either the complete lack of opportunity, or choice restricted almost entirely to woodworking, except in the larger cities. It seems only a fair assumption that such a situation must react on pupils entering vocational schools, tending to influence them to choose woodwork because they know about no other line of school shop-work. One wonders how many of the ardent advocates of varied shop opportunity think only in terms of the big city and are unable to visualize the serious practical difficulties of the more numerous small town schools.

The item of cost frequently influences the extent of available offering. Not only are the hand tools of woodwork familiar to school boards and inexperienced instructors; but the greater cost of machine tools for metal work seems prohibitive when measured against an ever scanty budget. Further, the floor space required for mounting machines, for work on automobiles, for making available anything except bench work in electricity, can be figured in terms of costs. "We have no room" is often the reason for failing to offer a choice of opportunity.

Sometimes one kind of equipment is selected in preference to another because of a prejudiced or selfish motive on the part of some school official. There is the school board member who is unable to visualize any school except the kind he attended when he was a boy. He can not imagine a school changing to adjust itself to the

economic and social changes which twenty-five years have brought to the community.

There is the principal or superintendent who believes that printing or typewriting "helps English"; and the one who favors printing or typewriting because "it will be so convenient to get out letterheads, lesson sheets, or the annual report."

Sometimes specious arguments are advanced to the effect that the labor of pupils can be exploited to make repairs on the building, to save printing bills, or to pay part of the instructor's salary through the sale of "productive shop" projects.

In all such instances that which is simply a desirable by-product becomes a determining factor in defining available opportunities and consequently in limiting pupils' choice.

It is not an unusual experience to see boys scurrying around a school, planing sticking doors, and easing stubborn desk drawers, when the entire machine equipment of the woodworking shop is a tiny five-inch circular saw, and the supply of wood on the stock rack is so small that it could be carried out of the room on one's shoulder; or to see a boy wearily turning out "productive shop" material by threading two-inch iron pipe couplings which were packed by the hundred in boxes stacked beside his machine. One can imagine that boy telling a prospective pupil a tale which would decidedly affect the latter's choice of occupational study.

At the other extreme is of course the obvious impossibility of reproducing in school shops the industrial conditions of the 2,500 to 5,000 occupations which might be listed. At most, probably not more than 20 can be satisfactorily reproduced, and when the items of expense of equipment and building are considered, that pupil is fortunate who is offered a choice among a half dozen or ten from such as list as

Machine shop
Woodwork
Sheet metal
Electricity
Automobile

Printing
Drafting
Commercial { Bookkeeping
 { Stenography
 { Typing

But this suggests another factor in determining choice. Shall we not agree that even up to the age of 18 years most choices are tentative, the pupil consciously or unconsciously is, and probably should be, trying himself out? This is only a matter of opinion, but one feels rather certain that much of the experience gained under one title, for instance *machine shop* is transferable to another, for instance *automobile*. While keeping carefully away from the thin ice involved in a discussion of "formal discipline," may we not agree that just as in the engineering school there is very little differentiation in the first two years' work as between the electrical course and the mechanical, so in our vocational schools much that a boy learns in the machine shop is basic and can be carried over. There is the instance of a fine boy in the Boston continuation school who after many months of work in the machine shop had an opening to go as an apprentice into the pattern-making trade. He was quite distressed and hesitated to accept the offer because, as he said, it would mean that he had wasted a year and a half in the machine shop. But his instructor, an experienced mechanic, assured him that in the pattern-making trade he would find useful practically all that he had learned in the machine shop. The point to be emphasized in this connection is that great variety of choice is neither possible, nor necessarily desirable.

We are talking about choice as affected by types of opportunity offered in the school. One wonders how many of these offerings depend upon a selection by school officials on the basis of the "logical" as distinguished from the pedagogical or psychological reason. The distinction is familiar. The psychological method is that

followed in kindergartens and the lower grades, instruction is adapted to the unfolding of the natural growth of the child, the teacher tries to follow the child's interests. In the upper grades, where the "logical" method predominates, we try to give them "what is good for them." We are guided by our own adult logic rather than by the pupils' dominant interests. One suspects that a great deal of the "logical" still determines the offering of woodwork. And doubtless there are cases where a vocational counsellor guides a pupil's choice with more reference to adult logic than to the pupil's psychology interest. Our sub-conscious belief in the doctrine of formal discipline dies hard.

Choice made by the pupil.—Now let us consider some factors which affect the choice as made by the pupil. Here we encounter some experiences which make us believe that a judicious amount of adult logic may be a saving grace.

There is the ignorance or limited experience of the pupil. The cold figures are indicated by what Burdge showed in the table quoted above. Few youngsters have any definite idea of what is involved in a given course. An illustration is the boy who steadfastly insisted that he wanted machine shop work because he wished to learn to operate the machines in his place of employment. The instructor was just congratulating himself on finding a boy who knew exactly what he wanted and why he wanted it, when an inquiry as to where he worked and what kind of machine he wished to operate brought the startling reply that he worked in a tailor shop and wished to learn to operate a power driven stitching machine.

This leads directly to the next step—the pupil who through lack of previous guidance and study of occupations, has only a meagre background on which to base a choice. That pupil is the argument for getting suitable instruction in this field down into the fifth and sixth

grades, whether the pupil will subsequently enter a junior high school, a trade school, or a continuation school.

Another factor is haphazard enrollment and failure to inform pupils and parents of existing opportunities in the school. This prevails to a considerable degree. Further, in many schools where guidance is attempted, such information does not really register with the pupils until they have been there some time. Probably in the commercial courses of evening high schools this factor is most prevalent.

The gang spirit has a strong influence on choice. The high-school girl takes stenography "because my chum wants to take it." The continuation school boys in Boston so frequently chose a course "because my pal is in it" that the teachers coined a phrase to identify such pupils and called the practice "palling around." In the evening vocational school, although here the effect is probably not so detrimental, "my buddy's" choice is frequently mine.

How many pupils select a course "because it is easy"? Burdge found that 20% of the employed boys in New York State liked their jobs for that reason, and this was about double the percentage for any other reason except that the job was "interesting." Twenty-seven per cent of the boys liked their jobs on this account. Doubtless there is some correlation between reasons for liking a job and reasons for choosing a vocational course.

One is very sure that the reputation of each teacher is known and that this has an effect on choice by some pupils. In the Boston continuation school new pupils seemed to know more about the teachers than they did about the courses. This teacher was "cranky" but "square." That one was "a peach." Another "makes you work hard, but he's a good guy." Of course we see the same situation in colleges where it is considered laudable to elect certain courses so as to come under the

instruction of a professor of outstanding reputation. And even though there be some indefensible prejudice on the part of the younger students, this matter of choice influenced by the reputation of the teacher has its merits. It is just another instance of Mark Hopkins on one end of a log and a boy on the other.

Many pupils follow a line of least resistance, especially in the continuation school. The "don't want to go to school" type is found in large numbers in the group which drops out of day school. Burdge found that those who left for the two reasons, wishing to go to work and expressed dislike of day school amounted to between 60% and 80%, and that about 10% did attend some night school, 30% would attend, and 60% would not attend. These facts account for the large number of pupils who attend continuation school only because the law is compulsory, and they must have a considerable influence in affecting choice. A fair estimate is that about 30% of the continuation school pupils have sound reasons for choice of studies; at the other extreme are about 30% who do not care, will not work, and are most discouraging material; in between is an intermediate 40% easily swayed one way or another. Because the choice of trade school or evening school is almost entirely voluntary, and most of the pupils may drop out if they so desire, we find here a much larger proportion of choice based on sound reasons. It is a fair inference that following a line of least resistance or passive acceptance of assignment prevails only slightly in high school vocational classes, still less in day trade schools, and practically not at all in evening vocational schools.

Choice based on a transient or superficial interest is a common experience. Electrical classes contain many who "like to see the wheels go around, or the sparks fly." Automobile classes derive part of their enrollment from an amateur interest rather than a vocational choice.

And the radio class is largely made up of enthusiasts. Yet these transient interests may lead to something permanent. An illustration is a Washington evening class of 200 radio "fans" which in the second year developed by shrinking to 75 serious students of physics.

The drift from one job to another is very marked in part-time and evening schools. About 60% of sixteen, seventeen and eighteen year old boys in New York State were on their present jobs only six months, and 40% only three months. This injects a recurring series of new factors on choice in these schools.

Choice affected by administrative difficulties.—Now let us consider the effect of some administrative difficulties. In cooperative courses the ebb and flow of industrial activity may compel change of choice. The pupil loses his job, the coordinator tries desperately to place him, and the result may entail a change of school work with change of job. During industrial depressions during the past two years the writer was informed by the directors of the two well established cooperative high-school courses that this situation was very serious. Many of us can bear testimony to the fact that "good times" fill the classes in the continuation schools, while those of the trade schools empty, and vice versa.

Overcrowded conditions in popular classes like typing, machine shop and electricity frequently compel pupils to content themselves with second choice. Often this overcrowding is not justified by the local demand for workers in that field. There is the instance of a vocational class of 75 students in electricity in a community capable of absorbing only from eight to twelve electricians in a year. Yet each pupil hoped and expected to be one of the lucky dozen, and those who were required to make a second choice were nevertheless dissatisfied.

There may be a corresponding situation just the reverse of this one,—two diminishing evening classes

which, because of high per capita cost, are merged into one. This frequently happens in academic classes, but rarely in vocational classes. Doubtless the use of the short unit course in vocational work tends to act as a preventive of such situations.

Sometimes the attitude of the school board against favoring one group unduly removes a study from the field of choice. An instance is an evening four-year course in accountancy which was cut to a two-year course in basic elementary commercial subjects on the ground that funds were limited and that those who desired advanced specialized training should be willing to pay for it in a private commercial school.

The method of advertising courses is a factor entering into possible choice in evening schools. There may be an industrial survey which determines types of courses offered in high, trade, and continuation schools, and the actual demand for a given course has some effect in day schools, as illustrated by the class of 75 electricians previously cited. But in evening schools the demand is practically the sole determining factor. That this demand is supposed to be spontaneous is implied in some state laws which require the establishing of any evening class for which a given number of persons, say 25, petition. But in actual practice the demand is likely to depend on the method used to advertise the possibility of having such classes. Thus one community uses the newspapers, another the trolley cars, a third posts notices in industrial plants, and a fourth supplements any or all of these methods by sending a coordinator or director into industrial plants to interview potential students. The resulting membership of the classes is then a resultant of the selective drawing power of the type of advertising used and the individual choices of the students brought into the place where they can register their demand.

Previous education and choice.—Up to this point the items discussed have been matters of more or less general experience. Now let us see if we have any evidence of correlation between previous education and choice.

There is some evidence of correlation with choice of school, but not, so far as the writer knows, with choice of subject in any detail. Burdge found that most boys leaving school on or before completing the eighth grade enter and desire to enter the industrial trades and occupations. Most boys who complete one or more years of high school enter and desire to enter professional, clerical, and retail business occupations. This indicates a measurable factor of choice as between evening commercial schools and evening industrial schools, as well as choice between commercial and industrial subjects in part-time schools.

Since Burdge found little correlation between boy's present and desired occupation and best and least liked studies, it is a fair inference that there is little correlation between the selection of any given vocational study and like or dislike for such studies as English, geography, history, or mathematics. It should be noted that drawing received little attention from the boys, whether for like or dislike, perhaps because they did not consider drawing to be a regular study. At any rate, and in spite of Burdge's finding, one would hesitate to say that there is not a correlation between a liking for drawing in day school and the subsequent choice of drafting as a vocational study.

There is increasing evidence of a correlation between intelligence test and type of school. On the median scores made in the Chapman-Wiles Test by Charles Sylvester Counts in his study of *The Selective Character of American Secondary Education*, in the Bridgeport, Connecticut, schools in 1920-21, he obtained these results:

First year high school	89.7%
Evening high school	78.1%
First year trade school	62.0%
Continuation classes	40.9%

Caroline Reedy in her article in the Vocational Education Magazine of October, 1923, shows these results on the testing of 1,318 continuation school pupils in Reading, Pennsylvania, by the Haggerty Intelligence Test, Delta No. 2:

	<i>Boys</i>	<i>Girls</i>
Very superior—Percent	0.15	....
Superior	2.0	1.0
Normal	52.0	41.0
Dull	26.0	32.2
Borderline	15.0	17.3
Feeble-minded	5.0	8.0

Her pupils were a much more representative continuation school group than the one in Bridgeport. Yet her conclusion is that "the majority of our pupils will grasp only work fitted for twelve or thirteen-year olds and that it is a useless waste of time and effort to subject them to seventh, eighth and ninth grade academic work." Her recommendation is that pupils be offered a choice of short-unit trade-finding courses for boys, and, for girls, home economics, with offerings of short-unit business courses for those of normal or superior intelligence.

The most recent study in this field by L. Thomas Hopkins, "The Intelligence of Continuation School Children in Massachusetts," concludes that "the median ability of both boys and girls who left school to go to work was approximately 2 years and 6 months below that of the same sex who remained in school. Hopkins cites supporting evidence in Dearborn's 1909 study in Wisconsin high schools; Proctor's 1919 investigation of California high schools; Dr. Ruth Clark's 1921 survey of New York City continuation school pupils; Plenzke's study of Wisconsin continuation school pupils; Young's study of Denver Opportunity School pupils.

Although the matter is yet in the disputed stage, there is a general agreement that the continuation school tends to get pupils with lower intelligence tests than in other schools.

Counts obtained some inconclusive evidence in the Bridgeport high school where girls in college, normal, and commercial courses had, respectively, average median scores of 95.9, 89.8, and 86.8, but the boys showed no significant variations, and at any rate, the commercial course is not strictly vocational although it approaches the vocational.

Further, Counts found no significant correlation between nationality, that is, the country of birth of the parent, and intelligence test of the high-school pupil. This statement is placed here as a matter of record since, as we shall see later, there is evidence of correlation between nationality of parent and choice of school.

Sociological and economic factors.—Now we take up the matter of choice as affected by sociological and economic factors. Very rarely do we get far enough to observe a correlation with choice of a particular vocational subject. Usually the correlation stops when we get the pupil into a given type of school. But it is to be noted that there are selective influences which affect the determination of which type of school a pupil enters. The discussion is based chiefly on tables of correlation.

The extensive study of William F. Book on "The Intelligence of High School Seniors in Indiana," tends to support the following conclusions from Count; but the study of Colvin and McPhail on high school seniors in Massachusetts shows some differences in the relative grouping by parents' occupation.

The distribution of young workers by ages and occupation is shown in the following tabulation:

A STUDY IN CORRELATIONS

This table was made up combining data from "The Selective Character of American Secondary Education" by George Counts, and from "Our Boys" by Howard G. Burdge. It shows various correlations between the occupations of parents and the choice of school, present occupation, and desired occupation of boys and girls.

Parental Occupation	I	II	III	IV	V	VI	VII	VIII	IX
Common labor	16.0	1.4	93	22.6	11.9	17.2	571	21.0	1.8
Miners, lumber-workers, fishermen	3.7	1.0	32	.....	.....	.5	...	.....	.....
Miscellaneous trades ..	5.8	2.0	25	16.3	15.2	10.7	109	6.5	4.0
Building trades	24.3	11.8	17	8.6	10.7	9.6	82	8.0	8.7
Transportation service.	9.5	5.6	14	4.0	2.5	3.0	46	10.8	14.2
Public service	2.5	1.5	14	.2	1.2	.5	9	0.8	5.9
Machine trades	11.1	7.4	13	22.0	20.6	25.8	72	34.0	38.4
Personal service	1.8	1.6	9	2.5	1.2	4.0	50	.....	.....
Agricultural service ..	3.9	4.8	7	.9	5.8	4.5	57	.....	.....
Clerical service	3.5	4.6	6	1.7	1.2	1.5	16	49.5	14.8
Managerial service ..	8.2	17.1	4	5.3	9.9	7.6	18	2.7	18.4
Professional service ..	4.1	11.4	3	.7	2.5	1.0	9	7.7	24.9
Commercial service ..	2.7	8.7	3	1.2	3.3	1.5	11	13.9	32.7
Printing trades .....	.2	1.1	2	.3	4	1.0	71	13.0	11.9
Proprietors	2.5	17.4	1	1.4	6.6	6.1	8	.....	.....
Artisan proprietors ...	.2	2.6	..	4.3	5.4	4.5	42	.....	.....
All occupations	100.	100.	8	.....	.....	.....	...	.....	.....

Columns I and II (Counts, Table XVII)—Percentage distribution of the occupations of the fathers or guardians of two groups of children. Data from 514 children of high school age at work and 6,138 children in high school, Seattle.

Column I shows children of high school age at work.

Column II shows children in high school.

Column III (Counts, Fig. 7). Showing the number of children from each occupational group among children of high school age at work for every 100 children from the same group attending high school. Data from 6,387 children in high school and 514 at work. Seattle, 1919-20.

Column IV (Counts, Fig. 10). Showing by percent-

ages the occupations of the fathers of 579 children attending the compulsory continuation classes of the evening school. Bridgeport, December, 1920.

Column V (Counts, Fig. 8). Showing by percentages the occupations of the fathers of 243 students attending the high school department of the evening school. Bridgeport, December, 1920.

Column VI (Counts, Fig. 9). Showing by percentages the occupations of the fathers of 198 students in the state trade school. Bridgeport, February, 1921.

Column VII (Counts, Fig. 11). Showing the number of children from each occupational group among children of high school age not in high school (evening high school, trade school, and compulsory continuation classes) for every 100 students from the same group attending the regular day high school. Data from 2,257 children in high school and 1,020 in the other three groups. Bridgeport, 1920-21.

Column VIII (Burdge, Table 24). Percentage of boys engaged in a given occupation, whose parents were in same occupations in 1918-19, among boys 16, 17, and 18 years old in New York cities of over 25,000 population, including greater New York. Burdge's classification of occupations differs somewhat from Counts', but not enough to destroy the value of comparison. The figures for *machine trades* are his *metal trades*, for *public service* his *government service*, for *commercial service* his *business, retail*.

Column IX (Burdge, Table 24-d). Shows for the same group percentage of boys desiring to enter same occupation as parent.

A comparison of Columns I and II shows strong correlation between parental occupation and (I) leaving school to go to work, with school opportunity then limited to evening or continuation school; or (II), staying in high school. Note that of children at work, the

fathers of 16 per cent are common laborers, of 24.3 per cent are in the building trades, of 11.1 per cent are in machine trades, but that only 5.2 per cent are in managerial service, and 2.5 per cent are proprietors; whereas common laborers furnish only 1.4 per cent of the children in high school, machine trades only 7.4 per cent, but managerial service furnishes 17.1 per cent, and proprietors 17.4 per cent.

Column III shows strikingly the grouping at the top of the list of those parental occupations which have many children at work in proportion to the number they have in high school, whereas those at the bottom of the list have relatively very few children at work.

In Column IV note how common labor, miscellaneous trades, and machine trades send their children to the continuation school, and contrast this with the small number from clerical service, managerial, or commercial service.

Column V shows a similar high correlation between parental occupation and pupils attending the Bridgeport evening high school. A comparison of Columns II, IV, and V shows that the pupils of the evening high school and the continuation school tend to come from the same groups of parental occupations, and that the high school pupils come from quite different groups.

Column VI shows that the state trade school pupils line up with evening high and continuation school pupils rather than with those of the day high school. Column VII summarizes this condition, showing conclusively a selective principle at work, which tends to differentiate day high school pupils from those of evening, trade, and continuation schools, on the basis of parental occupations.

Now Burdge found these conclusions in his study of correlations between fathers' occupations and those of boys;

There is a distinct correlation between

1. Fathers' and boys' occupations.
2. Fathers' and boys' desired occupations.
3. Boys' present and desired occupations.
4. Last grade completed and type of occupation.
5. There is no more correlation in the eighteen year old group than in the sixteen year old group in the four items above.

Columns VIII and IX of the table show strong correlations between the present and desired occupation of the boy and that of the father.

Now let us try to translate these facts in terms of choice of vocational studies.

1. The occupation of the parent has a decided effect in determining the type of school the youth attends, and the occupation he has and desires.
2. The type of school largely determines the available choice of vocational study.
3. Choice of vocational study is undoubtedly strongly influenced in most individuals by present occupation, and more strongly influenced by desired occupation, since desire is one expression of choice.
4. Therefore, parental occupation is an important factor in determining choice of vocational study.
5. We do not know to what extent the pupil's present or desired occupation is the result of inherited tendencies, and how much it is the result of environment—of the mere fact that certain occupations are at hand, of the matter of luck in getting a job, said luck being influenced by the father's occupational contacts. But whether from heredity or environment, or both, we get a resultant influence which tends to land a relatively considerable number of pupils in their fathers' occupations and in a type of school which offers preparation for those occupations.

As to the kind of course which should be offered after these selective influences have defined the group, there is food for thought in Burdge's statement:

"That there is a definite need for short unit courses was brought to light by the personal interviews with thousands of these boys made by the inspectors of this bureau in the course of the survey. Long, indefinite courses in arithmetic, mechanical drawing, auto mechanics and kindred subjects do not appeal to boys or for that matter to many men. A short course successfully covered is a great incentive to further effort which cannot be said of long, drawn-out, indefinite courses in night schools or part-time schools.

"The outstanding fact in regard to night school attendance of boys of these ages is that the majority of them have no desire for further schooling through proper guidance and counsel and the offering of popular short courses."

Another selective agency is nationality. Burdge found (page 182) that few foreign born boys attend night school, but that their expressed desire to attend is slightly higher than that of boys in general in the individual cities of over 25,000 population. One wonders whether this indicates the need for some change in advertising opportunities, and whether it indicates a need for specialized guidance work.

Counts (Table XL) found measurable tendencies for children of immigrant stock to be better represented in evening, trade, and continuation schools than in high school. This might naturally be expected, and be traceable to economic status rather than to nationality.

The percentages of Bridgeport children whose fathers were born in the United States were

In day high school	49.0%
In evening high school	22.6%
In trade school	22.2%
In continuation school	17.8%

But he also found significant differences for different immigrant stocks. There is a greater proportional rep-

resentation in the high school for the Irish, Russian Jews, and Scandinavians, the Irish and Russian Jews especially having almost the same proportion as native stock.

Further, he found a much greater representation of the Irish and Russian Jews in the evening high school than in the trade or continuation school, indicating not only a stronger interest in academic education but also exceptional energy and earnestness in the pursuit of educational opportunity, since voluntary attendance at evening school involves some serious, immediate, personal sacrifice.

Another interesting fact Counts emphasizes is that although the normal tendency in American high schools is to enroll 100 girls for 85 boys, in the children of immigrant stock, those from the north of Europe approximate this tendency, but for those from the south of Europe, the boys outnumber the girls by ratios ranging from 102 to 152 boys for each 100 girls. That is, secondary education for girls is regarded as less necessary. One wonders what effect this tendency may have in keeping girls out of vocational schools, so that they do not even have the opportunity to register a choice.

Another line of speculative thought which may or may not be worth while leads one to desire information as to the effect of restrictions on a nationality basis which debar certain races from certain trades. Is choice of vocational study affected by the fact that some vocations are more or less closed to certain nationalities?

It is significant that this presentation of factors affecting choice of occupational studies ends with a question instead of with a positive statement.

We need some scientific studies, something like Counts', designed to extract the correlation of the factors affecting choice of vocational studies in four types of schools, day vocational courses, trade schools, vocational evening schools, and continuation schools.

When we get them we shall be ready to make the next step; that is, to try to determine the causes lying back of the correlations. The available evidence which has been presented in this discussion points to four major causes of choice, as follows:

1. The practice of school officials in offering more or less varied opportunity.
2. The attitude of the individual pupil towards academic or vocational instruction as correlated with intelligence tests.
3. The economic status of the family as determined by parental occupation.
4. A combination of social, racial and economic factors, each acting on the others and jointly producing a resultant of attitude and of opportunity for the child.

REFERENCE

1. *Our Boys*. A study of the 245,000 sixteen, seventeen and eighteen-year-old employed boys of the State of New York, by HOWARD G. BURDGE, made in 1918-19.

CHAPTER XII

WORKING CONDITIONS IN THE CITY

Shifting jobs.—The large extent to which children enter unskilled and routine positions is shown by numerous studies. The Massachusetts study of 1913 reported that the 14-year old child enters unskilled industry and remains there. Eighty-nine per cent were in low-grade industries, giving practically no training, or in completely unskilled occupations. Douglas cites¹ a New York investigation where 71.3% of the cases had absolutely no training; 10% had a slight chance of "picking up" training; in only 5.2% of the cases was any real supervision or direction given by the employer. A Chicago investigation showed less than 7% in skilled occupations where they received any training. The Federal report of 1910 (Children in Industry Survey, page 28) showed 98% in unskilled occupations; the Hartford Vocational Guidance Committee, 1911, reported practically all unskilled at jobs in factories, stores, etc.; the Philadelphia Public Education Association reported, 1912, only 3% in skilled industries; the Chicago Stock Yards District study, 1912, only 6%.

A recent survey in Mansfield, Ohio, of 720 employees 16–21 years of age, in industrial plants, showed that although the great majority of them were engaged in less than 70 different occupations, the entire group was in 120 different occupations. Most of these occupations are either unskilled or semi-skilled jobs, that is, the type that could be learned in a period ranging from a few

hours to a few days. More than two-thirds of these employees, both boys and girls, did not get beyond the eighth grade in school.

Under these circumstances it is no wonder that they shift on their jobs. Figures are only confusing in discussing this matter. The facts brought out in every survey show that young workers hold their jobs for comparatively short periods of time and change from job to job for all kinds of trivial reasons. In general the size of the community makes no difference in the number of jobs held. About 50% up to the age of eighteen hold their jobs for less than six months.² As they grow older they do not shift quite as frequently. That is, to the extent that the restlessness of youth is a factor, shifting subsides as restlessness is outgrown. To the extent, however, that an unskilled or semi-skilled occupation has little attraction for any normal person the tendency to shift continues. It may be stopped for a small number through guidance which directs to an occupation more satisfactory to the given individual. Any guidance agency can give numerous instances where individuals have been properly placed and therefore have stopped drifting. The writer does not know of any evidence which proves that the drifting of a sizable group of workers either young or old has been checked by an agency outside the place of employment. Within the factory or plant, of course, notable instances are cited where great improvement has been made. These instances, however, lie within the realm of personnel management rather than of educational opportunity.

Accidents.—Watkins states³ that a recent examination of employment certificates in Boston showed that nearly one child in every twelve had suffered some accident since taking his first regular position, and that seven-tenths of the accidents occurred while the children were at work. Another investigation showed that boys

under 16 have twice as many accidents as the adults, and the girls under 16 three times as many accidents as the women. In the cotton mills of the South the accident rate for children was more than double that for employees over 16 years of age. In eight factories in England the accident rate among the boys (those under 18 years of age) exceeded by 50 per cent the rate for men over 41 years of age. Carelessness of children in handling dangerous machinery is a prominent cause of the greater percentage of accidents among them. The child worker will venture blindly into numerous hazards to health and limb, which are carefully avoided by all save reckless adults. The child's inexperience in handling machinery and the employer's failure to safeguard it are other responsible factors.

*Economic Necessity.*⁴—In the case of 620 children in seven industrial centers in Rhode Island, Georgia, Alabama, South Carolina and Pennsylvania, 30% entered employment because of family necessity. Over one-third of 168 workers under 16 years of age in Waltham, Mass., and 40% of 823 children interviewed in Boston gave economic need as the reason for leaving school. Economic necessity accounted for 52% of 371 children in Buffalo; 25% of almost 5,000 children in Iowa from 1916 to 1918; 66% of almost 3,400 children in Baltimore; approximately 58% of about 1,500 children in Louisville, Ky., in 1918; 32% of almost 7,000 children in Chicago in 1916; from 10% to 18% of the New York State boys investigated by Howard Burdge.

Attitude Towards Day School.—Dissatisfaction with school was given as a reason for going to work by 49% of the 620 children mentioned above; 30% of the Waltham and 20% of the Boston children,⁵ 22% in Buffalo and 22% in Chicago. Burdge reports about 10%.

Juvenile Delinquency.—In the matter of juvenile delinquency young workers furnish much more than their

proportionate share of offenders. One cannot say how much of this is due to conditions of employment such as monotony and a desire to emulate some adult worker; how much is due to new-found independence, spending money, and expanding acquaintance with undesirables; how much is due to an environment of poverty or to other reasons. The fact remains that records in the children's court of New York City⁵ showed that working children furnished four times as much delinquency as school children; that recidivism was more pronounced among the working group than the school group, that the more serious offenses were committed by the working children and that the home conditions of all the children did not vary to any great extent. The records of the children's court at Buffalo, from January to July, 1919, showed that while 24 out of every 1,000 boys and 4 out of every 1,000 girls, between 14 and 16 years of age, and attending school, were arraigned, 64 boys and 10 girls of the corresponding working group were arraigned. This delinquency, however, is largely restricted to certain types of employment, thus in the New York City group one-third of the delinquents were newsboys or bootblacks, two-fifths were delivery, errand and wagon boys; factory workers numbered only 7%.

Clara E. Laughlin reported⁶ that more than half of the boys who came into the juvenile court were charged with violations of property rights, such as breaking windows, stealing coal from railroads, or cutting lead-pipe out of empty houses. In the case of girls only 15% are charged with violation of property rights. This practically always means stealing, usually the theft of wearing apparel or of money to buy it with. More than 80% of the girls come into court on charges of immorality; only 2% of the boys are so charged.

Miss Laughlin claims that the widely prevailing idea that modern industrial conditions, which take girls and

women out of the home, are responsible for a great increase in criminality and immorality is exactly the reverse of the truth. The traditional pursuits of women—housework, sewing, laundry work, nursing, and the keeping of boarders—furnish more than four-fifths of all the female criminals compared with only about one-tenth furnished by all the newer pursuits, including mills, factories, shops, offices, and the professions. And the number of criminals who have never been wage-earners in any pursuit but who come directly from their own homes into the courts and penal institutions is more than twice as large as that coming from all the newer industrial pursuits together. The government investigation into *The Relation between Occupation and Criminality of Women* showed that nearly three-fourths of the women criminals come from among domestic servants and waitresses, although less than one-fourth of our gainfully employed girls and women are in those two occupations. The inference is that the unintelligently directed home is giving the powers of law and order more grievous concern than any other agency in American life to-day.

Such a statement may be discounted considerably and still furnish a powerful argument for emphasizing instruction for girl workers in the field of home economics. To the extent that these girls may be trained in habits of thrift and scientific home management and be given specific instruction in personal hygiene, care of young children, home decoration, the making and purchasing of garments and the proper preparation and serving of food, to that extent will safeguards be reared against the breaking down of the home and the consequent juvenile delinquency.

One of the most effective agencies for controlling and remedying delinquency in young workers is provision that the delinquent be kept steadily at work on a worthwhile job. There was some virtue in the old Colonial

idea that idleness was sinful. "Satan will find mischief still for idle hands to do." The effective modern agency is constructive cooperation between juvenile courts and the part-time school. In general these delinquents need guidance and sympathy rather than punishment. The standards for an effective juvenile court adopted at the Third Conference of the Children's Bureau and the National Probation Association in 1923 are: (1) That the court be clothed with broad jurisdiction; (2) that the court have scientific understanding of each child; (3) that treatment be adapted to the individual case; and (4) that there be a presumption in favor of keeping the child in his own home and in his own community.

The teachers in a good part-time school are likely to have an unbiased and sympathetic understanding of the delinquent and to have such contacts with employers and with placement agencies as to enable them to place the child in employment and to have knowledge of his attitude and conduct. The simple device of remanding the delinquent to the care of the attendance officer who in turn elicits the cooperation of the part-time teacher and checks up each week on the standing of the delinquent, works well in practice in most of these cases.

The workers and their jobs.—Any extensive study of the jobs held by young workers reveals the fact that we know considerable about the job itself. Modern scientific job analysis in store work, factory work or farm work has revealed what is needed and what is not needed for the successful carrying on of the job. When it comes, however, to those elusive human factors involved in considering both the worker and his work, there is lack of information about the worker.

We have an abundance of material from which to make an accurate description of the young worker under 16 years of age. Such material is not abundant for describing those over 16. Further, so many new factors

have entered into the situation in the last ten years, partly through new legislation and partly through the extensive activity of part-time schools dealing with those under 16 years, that in many communities essential changes have taken place in the older group. This was illustrated in the relatively younger age and higher previous schooling qualifications of the Cincinnati group of young workers in vocational evening schools. Unfortunately, however, such instances are usually confined to the more progressive communities. At present they have value as indicating a reasonably successful method rather than as indicating a widespread change of condition. Therefore many of the older studies have value in emphasizing conditions which still need to be improved.

From this point of view it is worth while to repeat some of the findings of the Massachusetts Report on The Needs and Possibilities of Part-time Education, submitted in 1913. In factory work these investigators found no relation between the length of time in the business and the kind of work done. Forty-six per cent of the group which had been at work one year were doing what is considered skilled work; 54% unskilled work. After six years in the trades surveyed—candy, shoe and textile industry, the proportions were a little more than reversed; 58% on skilled work, 42% on unskilled work. That is, six years mean little so far as promotion is concerned. Very few, only 4%, advanced from unskilled to skilled work during these years. There is, however, a great difference in wage. Since this does not usually indicate employment at a higher grade of work, it must mean increase in speed of production or the ability to turn out work rapidly.⁷ Usually young workers attain the maximum wage in these occupations when they are from 19 to 22 years old. Thereafter the possibility of increase of wage as an incentive is lacking, and unless speed is maintained there is actual danger of a decrease in wage. The

monotony of the work and the speed and nervous energy required tax the physical and mental resources of the young worker, so that there is a decided tendency after the passage of from three to five years to drop to less skilled work and lower wages. This experience brings a bitterness of mental attitude which reacts destructively on the worker's whole outlook on life. Undoubtedly it accounts for a considerable amount of shifting from job to job. The young employee hopes to discover a path with better outlook for the future; at least he will get a change in surroundings if not in occupation.

The prospect of any change in the technique of industry is very slight. It tends to limit itself to the granting of a short working day. This is the situation which justifies provision in part-time and evening schools for studies designed to awaken the civic and vocational intelligence of workers, and emphasizes the importance of expanding educational offerings of this type.

The fact that industry does not change greatly in the aspects described is shown by a 1923 study in Detroit.^s For the jobs held by seven hundred and forty-five 15 and 16 year old boys 18% required one day of training; 37% required one week and 22% required one month. The average was three days, and only 12% of the jobs required training of more than one month. The figures on jobs held by seven hundred and fifty-five girls are even less encouraging. Only 3% required training of more than one month; 17% of the jobs required one day of training, 53% one week and 22% one month. As in the case of the boys, the average time of training was three days. Their jobs fall distinctly into three chief classes: Low grade, unskilled work, which occupies, approximately, one-half of the girls and one-seventh of the boys; medium grade unskilled work, occupying one-sixth of the boys but relatively few girls; and medium grade, semi-

skilled work, taking a little more than one-fourth of the boys and taking a little less than one-third of the girls.

Their reaction to what they do not like in their jobs is shown under four headings for boys' jobs: (1) They dislike a particular duty or task, such as glueing, cleaning the basement, greasing pans, sacking potatoes, answering the phone or scrubbing. (2) They dislike a physical strain, such as standing all day, carrying heavy packages, cutting hands, and sitting too long. (3) They dislike certain working conditions, such as long hours, disagreeable weather, getting up early in the morning, wearing gloves, "working for everybody" and "too many bosses." (4) They have a dislike based on some personal reason, such as "to get the devil from someone" or "the girl book-keeper" or "no chance to learn."

One of the most accurate recent pictures of working conditions for 14 to 16 year old children is the study of 3,300 boys and girls in Philadelphia.⁹ As has been pointed out previously, the distribution of young workers in various occupations depends upon the local industries. In this respect, therefore, the study under consideration is typical only of cities which have industries like those of Philadelphia. As regards general working conditions, however, this study is typical of conditions in any medium or large-size city. Nearly two-thirds of these boys and girls were engaged in mechanical occupations. One-half of the boys were in commercial occupations but four-fifths of the girls were in mechanical. This tendency of younger girls to enter mechanical occupations and of younger boys to enter commercial occupations is corroborated by a study of the working children of Boston.¹⁰ It marks a point on which those supplying educational opportunities should be especially cautious, because as will be shown later the proportion of boys and girls in these Philadelphia plants is quite different from the proportion of men

and women in the same plants. This situation is likely to occur in any community and throws upon educators the responsibility for deciding whether they will fashion their educational opportunities with reference to the present jobs or the probable future jobs of the children.

Definitions of what constitutes monotony on a job will vary with the individual who makes the definition. Such variation will not however change materially our general estimate of a job. In this group over two-fifths of the children were in monotonous occupations. This included more than one-half of the girls and nearly one-fifth of the boys. Mentally stimulating work calling for judgment or memory was being done by 30% of the children. Ninety-seven per cent. of the boys and 86% of the girls were in occupations which did not require skill. This is in striking agreement to the findings of the Douglas Commission in Massachusetts in 1906, which reported 98% of all the children in that State who began work between 14 and 16 as employed in unskilled or low-grade skilled industries.⁴

The prospect of preparing for skilled occupations through training opportunities offered in industry is slight. Specific training definitely preparing for any skilled occupation or trade was limited to 11% of the boys and 29% of the girls. General training, which simply means an opportunity to learn something about various lines of work, was open to 60% of the boys and 37% of the girls. No training of any kind was given 29% of the boys and 34% of the girls. In this connection it is interesting to note that whereas 34% of the children in manufacturing and mechanical work received specific training, only 2% of those in commercial work received such training. This training in general is limited to casual instruction by a superintendent, foreman, forewoman, or older worker. Of the 250 firms visited only 7

had a modified apprentice system, 4 had some form of vestibule school, and 2 had a special force to train the new worker.

Opportunity for advancement rated as excellent or good for about a third of the children, fair or poor for about half, and there was no secondary occupation in sight for 17%. It is interesting to note that the chance for training is really greater than the chance for advancement. Thus 80% of the children in commercial occupations had either specific or general training but no more than half seemed to have opportunities for advancement. In the manufacturing occupations 60% had similar opportunities for training but less than half had opportunities for advancement. In general, boys had a better opportunity to advance in manufacturing occupations and girls a better opportunity in commercial occupations. Notice that opportunity for advancement as between boys and girls is just the reverse of actual proportions of boys and girls employed in these two lines.

How often we find a conflict between our ideas of what is good for children and the dispassionate judgment of the work-a-day world. The educator is constantly called upon to analyze those phases of instruction which are deemed good for general welfare and those which can be approved as specifically good for application in employment. Constantly we are confronted by a distinction between education which functions in hours of leisure and education which functions for specific advancement in employment. The contrast of what ought to be and what is, is frequently baffling. Surely we say the eighth-grade graduate is better material and is entitled to a better job than the sixth-grade "drop-out," and the boy or girl who persisted in school until some high-school education was obtained is by that degree superior to the others. The actual demands of industry and commerce are frequently measured on another scale. So in this investigation, in

reply to the question "How much schooling must a young person have to advance as far as possible in this firm?" the common answer was "Very little," or "Just enough to get working papers." Two-thirds of these children were reported by employers as needing only a sixth-grade education. Only one child out of every fifty was said to require some high-school education. Completion of the sixth grade was all that was deemed necessary for 97% of the children in manufacturing occupations, while a little more than half of the commercial group were said to need a seventh-grade education, and only a third were said to need an eighth-grade or some high-school education.

One of the startling facts encountered in a study of scientific analyses of jobs is the frequency with which the mathematical requirement is stated in some such terms as "must be able to count to twelve" or "to fifty," and the science requirement is rated as "none;" the general education requirement as "ability to read."

Additional light on the relation between previous schooling and type of employment is thrown by the survey of the working children of Boston.¹⁰ In general this report substantiates the findings of Howard Burdge that children leaving school in the lower grades tend to begin the industrial career in a factory or mechanical occupation. The statement is made that the standing of children in school appears to have had a decided influence over the occupations they entered. One immediately, however, raises the question whether there is any causal relation between what was taught in school and the demands of different jobs. One suspects that different kinds of work require different capacities and attitudes inherent in the worker. The line of cleavage is one of general intelligence and personality rather than of the acquiring of a certain amount of schooling. It is pretty well accepted that the day schools act as a powerful selective

agency in retaining children of better than average ability. The Boston survey states that a much larger proportion of the positions held by retarded children, 37.4%, than of those held by children from normal grades, 29.9%, and by the latter than by children from grades higher than normal, 24.1%, were for work in factory and mechanical occupations. Retarded children form a smaller proportion than any other group in work as apprentices and helpers in skilled trades. Further, foreign-born children, or children of foreign-born parents, tend to be retarded not only for the same reasons which retard native-born children, but also because of a more extensive shifting from one school system to another. In addition, they are not so likely as American children to have intimate knowledge of local conditions. Thus this type of foreign child is not normal as we are using the term at the moment. One would therefore conclude that the basis of distribution in jobs of varying degrees of requirement is the inherent quality of the child, sub-normal, normal or superior, rather than the school grade completed. The children from normal or higher than normal grades for their ages had an advantage over the others in choice of occupations, steadiness of work, initial wages, wage increases and average earnings. This advantage was, if anything, more pronounced three years later when the same children were again interviewed. This leads the Boston investigators to suggest that even the small amount of education which the eighth-grade graduate could boast over the sixth-grade graduate was a real industrial asset.

In so far as this greater amount of schooling is correlated with greater intelligence, this conclusion is substantiated by the Army intelligence tests. That there is a relation between intelligence and occupation is indicated by the results of the Alpha test in the United States Army.¹¹ These showed that the range of intelli-

gence of the middle 50 per cent. of the different occupational groups was as follows:

	<i>Median</i>	<i>Middle 50 Per Cent</i>
1. Unskilled labor	35	21 to 63
2. Semi-skilled	42	23 to 70
3. Skilled	61	26 to 95
4. Business and Clerical	96	58 to 145
5. Professional	140	98 to 184

Evidently this discussion has led us to two specific questions. The first is for the psychologists to answer, namely, whether more years of schooling will increase the inherent ability of the child. The second is for the sociologists to answer, namely, whether more years of schooling are justified because they yield a social asset even if they do not yield an industrial asset.

Any school coordinator or vocational counsellor will bear witness that almost invariably when the question is raised as to how school instruction may be modified to make the worker more efficient, the employer replies in terms of abstract qualities rather than in terms of specific skill or definite knowledge. So in this Philadelphia study, managers in the mechanical occupations ranked attentiveness as the first qualification; after that alertness, accuracy, patience and neatness were emphasized in the order named. Courtesy, while always desirable, was not reported as necessary, because in the mechanical occupations there is little contact with others during the period of actual work. In the commercial group, alertness ranked first, and courtesy, neatness and attentiveness were next in order. The point is that occupations in the commercial group bring the employee into contact with other people; therefore such qualities as courtesy and neatness are important.

Nearly two-fifths of these children were sitting at their work, and more than half were in occupations which necessitated moving about. In the mechanical occupa-

tions 6 out of every 10 were sitting at their tasks, whereas in the commercial group 9 out of every 10 were moving about. In addition to normal physique, the physical qualifications necessary were manual dexterity or deftness and precision in handling articles, good eyesight, strength and height.

Any statement regarding wages is likely to have only temporary value in these days of adjustment from World War conditions. At the time of this study (1921-22) the minimum weekly wage for boys was \$4.50 and for girls \$4.00. The maximum for boys was \$25.00 and for girls \$20.00 a week. The usual wage was \$8.00 a week for both boys and girls, 61% of the children earning between \$8.00 and \$8.99 a week. Over four-fifths of the children were paid a stated amount per hour or per week.

The necessity of shifting to another kind of work within a few years because of lack of promotional opportunity is shown by the fact that although the percentage of girls under 16 years of age was three times that of the boys, among the older workers there were 10% more males than females. In some concerns two-thirds of the employees were males, but nearly two-thirds of the children were females. In commercial firms the situation was reversed, 2% of the employees were boys and 1% were girls, although there were 11% more females than males over 16 years of age. A similar situation was discovered in surveys of a couple of Central New York State cities where a majority of juvenile workers were in clerical positions, whereas the majority of adult positions in these cities were in industrial lines. Similar shifts were discovered in the government survey of the working children of Boston.

Some discrimination in employment on racial lines was discovered in this Philadelphia study. Nearly two-thirds of the places stated that no applicant was refused employment on account of nationality, 10% more manufac-

turing than commercial firms making this report. Jews were discriminated against by 12% of the places; 8% said that they would hire no foreign-born person; Italians were refused by 5% of the firms and Poles by 4%. The usual discrimination against colored children was found, only eight places being discovered that employed colored workers in occupations connected with manufacturing processes.

Workroom conditions were observed in respect to light, ventilation, cleanliness, aisle and working space, and noise. For one-fifth of the total number of children these conditions were not satisfactory. The lighting in two-thirds of the places was either excellent or good; ventilation was good in nearly three-fifths of the places; cleanliness in over four-fifths of the commercial places, as compared with slightly over one-half of the manufacturing, was classed as either excellent or good. The space in the workrooms of one-fifth of the places was rated as unsatisfactory, and less than one-half of the firms were classified as either excellent or good. Nearly one-fifth of the manufacturing firms had a great deal of noise in some departments, and more than one-half of the places had some noise in connection with the work.

All of the 296 firms investigated were rated as to whether or not, on the whole, they were satisfactory places for the employment of junior workers. Seventy-four per cent. of the manufacturing, and 92% of the commercial firms were listed as satisfactory and desirable.

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- 10a. *The Working Children of Boston*. U. S. Children's Bureau. pp. 64, 245.
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CHAPTER XIII

YOUNG WORKERS IN AMERICAN VILLAGES

Distribution in school and employment. A study of Table V in the Appendix¹ reveals certain significant facts as to needs in educational opportunities for young workers in villages. It is evident that agriculture, while an important item in the southern, mid-western and far-western villages, is in no instance as important as manufacture, but tends to be more important than any single one of the other occupations. Nevertheless, in comparison with all the other occupations, agriculture is not predominant. That is, the village occupations very much more resemble city occupations in their respective regions than they resemble rural occupations. Further, in the 10 to 15 year age group, and even more strikingly in the 15-20 year group, the proportion in gainful occupations tends to be much smaller than in cities. This is borne out by the figures on school attendance which show that in every age group from 14 years to 21, the village young people are in school in much larger proportion than those in the cities. This is especially striking in the case of 16 and 17 year old girls.

Finally, it is to be noted that the proportion of females in personal and domestic service is much larger in the villages than in the cities.

The inference as to needed educational opportunity is obvious. There should be a consolidated high school which will offer (1) agricultural training for the village youth and for those who come in from the country; (2)

preparation for the occupations in manufacture, transportation, and trade which most of the boys will follow later; (3) preparation for clerical work for boys and especially for girls; (4) very strong courses in home economics for the large group of 16-17 year girls who remain in school, for the large number who find their occupation in domestic service, and for those who marry. The same equipment should be used to offer opportunity in the same lines to those who drop out of school to go to work. Finally, full justification for emphasis on citizenship training and cultural studies is found in the fact that the village children remain in school in greater proportion than do the city children.

Regional differences. The following facts are important, not only in their bearing on the racial and economic background of the young workers in villages, but also in their bearing on any plans for extending educational opportunities to meet the needs of adults. It is to be noted that the villages, that is, communities of from 250 to 2,500 population, in some respects resemble, in other respects differ from, both the cities and the strictly rural communities of the respective sections in which they are located.

Thus—The proportion of foreign born in New York's villages is several times as large as in the Pennsylvania villages; but for the entire group of mid-Atlantic villages, the proportion of foreign born in the villages is only one-third that of the cities and 72% of the foreign born is from the desirable stock of Northwestern Europe as contrasted with 44% in the cities. As a whole, the villages of this group have 95% native white population.

In the southern group about one-quarter of the population, both in villages and cities, is negro, with an insignificant percentage of other colored races, or of European immigrants. The remainder is native born white stock.

The mid-western villages offer a sharp contrast to the foregoing. Although 99% of the population is white, both in villages and cities only two-thirds of the population is of native percentage and 89% is native white. But whereas in the cities 59% of the aliens are from Northwest Europe, in the villages this group is about 80%. In the villages over 70% of the foreigners came to this country before 1900, while less than 50% of the city aliens did so. Thus, the villages now have a relatively small foreign problem.

In the far West, conditions resemble those of the mid-west rather than those of the Atlantic states or of the white southern population. The native white population is 88%, and of the foreign-born, about 65% came from Northwest Europe and Canada. But whereas in the mid-west there is little difference between village conditions and city conditions, in the far-west the cities have twice as many as the villages from central and southern Europe, and the villages have 14% from Mexico as against about 3% from Mexico in the cities. Evidently the village foreign problem is not so large as in the cities of that region, but it is a larger problem than in the mid-Atlantic villages. In all sections illiteracy among the native whites is small ranging around one-half of one per cent except in the south where it is 2.2%. But among the foreign born white and colored, illiteracy ranges from about 10% to more than 20%.

The distribution of population by age groups is especially interesting. The 10 to 20 year group is fairly constant in all sections, ranging only from 15% to 18.8%, except that in the southern villages it goes up to 21% for village girls. Nor is there a marked difference between villages and cities. But the 20 to 45 year group is different. Here the cities outnumber the villages by ratios of approximately 42 to 35. The active wage earners are in the cities in greater numbers. But the elderly people,

45 years and up, form an unusually large group in mid-Atlantic villages as compared with cities of the same region. The ratio is approximately that of 35 to 25. On the other hand, this elderly group is only about 20% of the population of the southern villages, with very little difference between villages and cities. The mid-western and far-western villages show a tendency for the 20 to 45 year group to predominate in cities, the ratio of about 35 in villages to about 42 in cities being about the same as in the mid-Atlantic region; but the elderly group shows no great difference between village and city numbers, which is in sharp contrast to conditions in the mid-Atlantic region.

Needed opportunities. From these facts the following inferences seem reasonable:—

The foreign stock of the villages, being of an older immigration and more largely from northwestern Europe than is the case in cities, would appear in general to be in little need of Americanization education. Rather, one would infer, it would tend to respond to offerings of general education in so far as it will make any response. The ancestral heritage of the younger group would have slight influence in determining response to educational opportunity. These youngsters are Americans, and their needs are determined by occupational opportunity rather than by inheritance.

Distinct local problems exist in the southern villages where one fourth of the population consists of colored folk who are 25% illiterate and of two per cent of foreign born whites (largely from Mexico) who are 38% illiterate. Similarly, the mid-Atlantic and mid-west villages have colored and foreign-born white illiterates in relatively large numbers. In the mid-Atlantic villages the colored group which is only seven-tenths of one per cent of the population is about 9% illiterate; the foreign white, 4.4% of the population is 10.3% illiterate. In

the mid-west, a colored group constituting less than one per cent of the population is almost 13% illiterate; the foreign white, 10.2% of the population, is 4.3% illiterate. In the far west the population is 1.5% colored, 10.4% foreign born white, and of the foreign born, 14.4% came from Mexico. The foreign whites are 10.5% illiterate, and the colored are 14.9% illiterate. Thus it is evident that in each region the villages have a distinct illiteracy problem.

The writer has not been able to determine the extent to which part-time or evening school work is being offered to young workers in these villages. He has, however, investigated the situation as regards part-time schools in the Pennsylvania villages. The Pennsylvania continuation school law is, after that of Wisconsin, the oldest compulsory part-time school law in the United States, dating from 1915. No state has a more drastic school law for 14 and 15 year old workers, since all school districts in which twenty or more of these children are employed are required to maintain continuation schools; and the law has been vigorously enforced for many years. Yet not one of the 14 Pennsylvania villages included in this study has a continuation school, because the number of young workers is so small that the villages do not come under the requirements of the law. It is a fair inference that similar villages, wherever situated, and for the same reason, do not provide continuation school instruction for young workers. This is borne out by the tabulation previously cited which shows that the 14 and 15 year old children in villages are attending school in larger proportion than in the cities. This is partly due to the fact that many of the states in which these villages are located have already raised the compulsory school age to 15 or 16 years. So far as villages are concerned, it is generally true that neither the employers nor the children will be unduly inconvenienced by the enactment by other

states of laws raising the compulsory school age to 16 years.

REFERENCE

1. The table (V) in the Appendix, and the facts cited in this chapter are taken from *American Village Studies*—Institute of Social and Religious Research, pp. 9, 41, 73, 129. Based on the 1920 census.

CHAPTER XIV

YOUNG WORKERS IN FARM COMMUNITIES

Distribution in school and employment. A careful study of Table IV in the Appendix justifies the following inferences:

(1) In spite of the chronic belief, and probable fact, that large numbers of young people leave the rural school districts and go to the cities, the section of the tabulation on "age distribution" shows in each county a large group of 15-19 year old boys and girls which make up about one-tenth of the total rural population and which is fairly consistent in all these widely scattered counties. The relatively smaller size of the group in Otsego County, New York is probably accounted for by the ease with which young people may go to the numerous not distant cities. The same observations apply to the 20-24 year group. The fact remains that there is a very large group of young people who need education.

(2) The section on "school attendance" shows in general that from three-fifths to three-fourths of this 15-19 year group is not in school and, consequently, should be considered in any plans for extending educational opportunities. In all the counties except Wake County, North Carolina, a materially larger percentage of the girls are in school than of the boys; and conversely, and with the same exceptional county noted, a smaller proportion of the girls are out of school and presumably at work.

(3) Detailed information on those at work is shown in the section covering "gainfully employed." The increase in the numbers of employed boys during the fifteenth, sixteenth, and seventeenth years is what would naturally be expected. The number of girls under seventeen years gainfully employed is

relatively small compared to the number of boys; naturally the boys in farming communities are a more available labor asset to the parents. The percentages on the 15-19 year group in this section indicate that the boys at work are a greater proportion than the girls at work by a ratio of four or five to one. Inasmuch as the section covering "school attendance" indicates that girls in school do not outnumber boys by even two to one, the natural inference is that large numbers of girls are working at home and were not counted as being gainfully employed.

(4) The section on the percentage distribution of young workers according to parental status shows a situation in farm communities entirely comparable to the situation elsewhere noted in this report regarding urban conditions; that is, the economic status evidently has a deciding effect in determining whether or not the young people shall continue in school. Just as in the cities the evening schools and part-time schools for young workers tend to make their largest recruiting from the children of day laborers and mechanics, with relatively small representation from the children of the clerical or proprietary class, so in the rural districts farm owners have the smallest percentage of the children at work and farm tenants next, and farm laborers the largest of all. This tendency holds consistently for all the counties noted. Approximately one-half the children of farm owners are at work, three-fifths of the children of farm tenants are at work, and three-fourths of the children of farm laborers are at work. In each economic group, however, there is a decidedly smaller percentage of girls than of boys at work. This is undoubtedly because the girls are not as usable as the boys so that in all groups they tend to stay in school until a later age and to work at home rather than to seek what the census taker defines as "gainful employment."

(5) The distribution of the working children according to nativity shows that the working group of young people in most of the rural districts is composed of native whites. Only in King County, Washington, is there a measurable group of foreign-born. The colored group of young workers furnishes a measurable problem only in the counties of the south and

southwest where from one-half to three-quarters of the colored young people are at work. The colored group in King County, Washington, is composed almost entirely of Japanese.

(6) It would appear then that, apart from the obvious local problem where a considerable group of colored youth should be cared for, the problem of providing suitable educational opportunity for young people in the farm population will deal with native-born whites.

(7) In spite of the general consistency of percentages which has been noted above the fact should be emphasized that these consistencies are only general. Only a hasty perusal of the percentages running across most of the lines of the tabulation show variations which warn the educator that there must be important human factors back of those variations. What those factors are can be determined only by a survey on the spot.

Detailed figures comparing farm population with urban population are given in Table VI in the Appendix. Section 1 of this tabulation shows a general tendency for the percentage of illiteracy to be higher in rural than in urban communities, which is borne out for the United States as a whole in Section IV. In five of the eight counties the percentage of rural illiteracy is from one-sixth to one-half higher among the farm population than among the urban population of the same region. Evidently the reason for the great difference between the two Missouri counties is due to colored illiteracy, the colored population in New Madrid County being 9.4% of the total population and being 41.7% illiterate, whereas in Scott County the colored population, although 28.6% illiterate, is only 1.1% of the total population.

Wake County, North Carolina, with a high native white illiteracy, has 44.2% of its population colored, and of these 24.3% are illiterate. In general, whether in the figures for the selected counties in Section I, or in those for the United States in Section IV, the heavy illiteracy

is among the foreign born and the colored. The urban advantage in literacy is much greater among total, native parentage, and mixed parentage, than among foreign born and negro.

The group of young workers, unfortunately, is not separately listed for illiteracy in the survey of the eight selected counties. The 16-20 year group is, however, listed for urban and rural communities in the census report. The percentages cited for this group in Section II of the tabulation under discussion show that for this group, rural illiteracy is three and four times as great as urban illiteracy whereas for the total group of 10 years and over the discrepancy is by no means as great. The importance of remedying the illiteracy in the younger group can not be too much emphasized.

Section III shows conclusively that the emigration of young people from the farm to the city does not affect the size of the 15-19 year group. The percentage of this age group on the farms is measurably larger than in the cities in every county except Otsego and there the percentages are practically identical. This substantiates the first comment made on the previous tabulation.

Section IV shows a surprisingly strong tendency to hold the farm youth in school. Urban figures for the 15-19 year group were not available for comparison, so the 14-20 year figures are given. This tendency in the eight selected counties to retain youth in school is substantiated by the figures in Section V for the United States. Evidently children of the 14-20 year group stay in rural schools in greater percentage than in urban schools. Now the figures of the 7-13 year group show the reverse. The inference is that such difficulties as distance, bad roads, or morning chores of mother or children, tend to keep the younger children out of school in greater degree than in the city. But opportunity for gainful employment in the city tends to cause the older

children of the city to drop out of school in greater proportion.

Further, whether in city or on the farm, and for any age group, the foreign born and negro children do not stay in school as well as those of native white or mixed parentage.

The drift from country to city. Volumes have been written about the growth of urban population at the expense of rural population. So far as this drift affects the young workers' group certain points stand out. The 16-20 year group is not seriously involved in this drift. The census figures show that the age group of 24-45 years in the cities reveals most strikingly the effect of this immigration. But the group which is actually moving from the farms to the cities is largely made up of young men and young women from 18-24 years of age. The study of eight selected counties shows in the 15-19 age group very little tendency to move from country to city. Dr. Galpin says that we do not know whether there are periodic cycles in this movement or whether it is affected by the value of farm lands or prosperity in farming. Further, we know nothing about the back flow of adolescents from the city to the farm which is probably rather high. We do not know how much this movement contributes to farm life and farm culture.

Dr. Vogt says¹ that the increase in urban population in Ohio is due to the immigration of persons over 21 years of age and the evidence does not appear to show a marked movement of persons under 21 years from the rural to the urban districts. Rather the decrease of young people in the country is due as much to a decrease in birth rate as it is to economic or social reasons.

*Very young rural workers.*² One situation which gives the advocates of further restriction on child labor a powerful argument is the condition of scattered groups of very young children who should be excluded entirely from the

category of young workers. Investigations in the last half dozen years by representatives of the U. S. Children's Bureau show that the sum total of these very small child workers amounts to a considerable number. These are not the children who are helping out at chores in the home or on the farm. They are the children of local or migratory families and are employed in seasonal industries. So far as the children are concerned the employment, although seasonal, is full time during the period in which it endures. They are found in sugar-beet growing sections in Michigan and Colorado, in representative cotton-growing countries of Texas, in truck and small fruit areas of Southern New Jersey, Maryland and Virginia, in the wheat and potato-raising and grazing sections of North Dakota, in rural Illinois, and in tobacco-growing districts of Kentucky, South Carolina, Virginia, Massachusetts and Connecticut. From 15% to 40% of these children were under 10 years of age. Only 17% to 29% were old enough to come into the 14-16 year age group. Out of 11,000 such child laborers interviewed in twelve States, approximately 4,600 worked on the home farm, but 3,700 were hired laborers, and of these over one-half were seasonal laborers, migrating from the cities chiefly for harvest work.

In addition from 30% to 60% of all the children in the localities studied had been absent from school to do this work. About one-fifth of those who had been absent for farm work had missed at least forty days of school. Largely as a result of their irregular school attendance from 38% to 69% of the white and from 71% to 84% of the colored children included in the surveys were from 1 to 6 years behind the school grades normal for their age. That this retardation is due to employment is shown by the fact that in all areas the retardation among the working children was greater than that among the non-working children attending the same schools. The

proportion of these children is relatively small when they are considered as part of the million child workers under 16 years of age. Nevertheless, with due regard for the numbers involved, the social menace in this situation is similar to that existing in the early days of child factory labor in this country, which called forth the legislative reforms which have been previously described.

Some beginnings have been made to correct the situation. In Ohio such labor was forbidden by an amendment to the law in 1921 except for "irregular service." This irregular service is defined as service which does not involve confinement; does not require continuous physical strain; is interrupted with rest or recreation periods; and does not require more than four hours of work in any day or twenty-four hours in any week. A Nebraska statute regulates the hours of work of children employed in the beet fields.

A serious conflict in this whole situation arises when migratory children cross State lines. In this circumstance the State from which they come is practically helpless to remedy matters, and the State to which they go is likely to disclaim responsibility. This is one of the situations where a Federal child labor law would be very helpful.

Recent surveys in Indiana, Ohio and North Carolina. A recent study³ covered sixty counties, approximately two-thirds of the number in the State of Indiana. It deals exclusively with boys on farms. It shows conditions in a rich agricultural state, where an efficient plan of rural education of less than college grade has been in effect for ten years. Probably the one most important conclusion of the study is that although certain broad generalities apply to the state and to units as large as one county, nevertheless the townships or even smaller communities show such varying degree of agreement to the general conclusions, that, for the purpose of developing instruction courses in vocational agriculture, each

community presents a problem in itself. A reasonable inference is that the need of young workers for general or cultural education would show similar broad agreement, with local differences as great as those discovered in the field of vocational education.

INDIANA FARM BOYS, OUT OF SCHOOL, 16-20 YEARS OF AGE

12 COUNTIES IN DETAIL

PERCENTAGE COMPLETING EACH GRADE

	6	7	8	9	10	11	12
4117 Boys, Northeast District .	3.40	8.70	39.57	7.82	5.83	2.26	24.39
3281 Boys, Central East District	4.51	10.24	32.77	7.98	6.55	3.26	25.11
3337 Boys, South East District.	9.33	20.47	35.54	7.41	4.92	1.47	11.14
5101 Boys, South West District.	9.61	18.07	38.27	5.80	3.61	1.37	13.02
3700 Boys, Central West District	3.32	8.65	31.84	7.86	7.41	2.30	27.76
2233 Boys, North West District.	6.94	16.11	41.41	9.31	6.04	1.30	9.77
21969 Boys, Entire State	6.31	13.75	36.49	7.47	5.56	1.99	18.80
12030 Boys, 16-18 Years Entire State	7.06	15.60	38.54	8.54	5.82	1.82	15.43

24.09% have left school at the end of the 7th grade and 60.58 at the end of the 8th grade. 39.42% go on to high school and 24.04 have either graduated from high school or have had some college work in addition.

16-17-18 YEAR GROUP—INDIANA—COMPARED TO BURDGE STUDY OF N. Y. FARM BOYS—PER CENT OUT AT COMPLETION OF GIVEN GRADE

Grade	5	6	7	8	9	10	11	12
Indiana	4.64	11.70	27.30	65.84	74.38	80.20	82.02	97.4
New York	10.7	29.0	58.5	87.6	94.4	98.1	99.3	100.
N. Carolina . . . . .	.....	.....	63.8	which means elementary graduates				

DISTRIBUTION BY OCCUPATION, 16-20 YEAR GROUP, BOYS

	Farming	Laborer or Industrial	Business	Teacher	Soldier
2563 Boys, Central East..	56.96	36.56	4.06	1.13	1.29
3223 Boys, South East...	75.40	19.02	2.70	1.92	.96
4619 Boys, South West...	56.44	38.27	2.34	1.80	1.15
2753 Boys, Central West..	56.49	35.39	5.65	.91	1.56
1960 Boys, North West...	59.44	34.79	4.49	.82	.46
18350 Boys, Entire State ..	59.63	34.23	3.66	1.43	1.05

The distribution by ages of boys in farming is given below:

16 years	73.07
17 years	65.37
18 years	59.99
19 years	54.94
20 years	51.68

This shows a drift of 21.39% *out of farming*, between 16 years and 20 years. Chiefly they went into laboring.

All Gregory's figures show such wide variation among the counties that it is evident part-time school offerings should be based not on regional figures, but on local percentages. For instance, the percentage of those completing grade 8 varies from 51.25% in Lake County to 28.69% in Delaware County, although the average of all the counties is 36.94%. Similarly the percentage of 16-year-olds in school varies from 41.25% in Jasper County, to 74.52% in Shelby County. The average percentage of pupils of a given age in school are:

16 year olds.....	62.09%	19 year olds.....	12.69%
17 year olds.....	36.68%	20 year olds.....	11.36%
18 year olds.....	22.69%		

For the 16-20 year group as a whole it is 31.02%.

The sharp drop comes after the age of 16 is passed.

Doubtless the figures and percentages of students available for further education should be discounted because of the size of the group which would not be interested and by the further fact that many live so near villages and have village interests that they would not be drawn towards a rural offering. Also there is a feeling among many school people in this region that, because of limited funds, it would be better to concentrate efforts on improving day schools and retaining a larger number of young people in the day schools, rather than to attempt salvage operations on those who have dropped out.

A similar survey ⁴ covers 21 counties in Ohio and gives a fair cross section of the State. In each community the number of young men under 26 years ranges from 13 to 69. Presumably there is an equal number of young women, allowing for the fact that they tend to stay in school about two years longer.

The number per square mile varies from 0.38 to 0.98. The distance that 75% of any group would need to travel to an available school varies from 3.5 miles to 7.5 miles. Road conditions would make winter travel for this purpose impossible for from 0% to 54% of different groups. They would be satisfactory for from 14% to 100% for different groups. In more than half the cases roads were satisfactory to the extent of from 80% to 100%. The majority of these young people are living on farms of less than 40 acres. All the foregoing indicates that there is a group of young workers available for educational opportunities.

Less than one-third of these young people had a high school course. Seven hundred and nine men were found. Of these 159 had graduated from high school. This group in different communities ranged from 19% to 35% of the total. One hundred and sixty had completed from 1 to 3 years high school; 266 finished only 8 grades; 85 had dropped out between 3rd and 8th grades and on 39 no data were found. On the whole the investigator estimated that not more than 20% of those under 26 years of age were high school graduates; that if a district had 10 high school graduates it also had 40 not high school graduates.

The fact that there were usually recreation possibilities in the high school gymnasium and an opportunity to use the farm shop indicates that the high school building is the logical center for additional educational opportunities.

One point that stood out in this study was that school records proved to be of little value in making the survey.

The personal visit was necessary. There was too much "dead timber," that is, out-of-date information in the school records. The present high school boys were very helpful in suggesting names, but newspaper notices, placards and letters were without value in making initial contact; evidently the contact must be personal. There was a tendency for young men to be prejudiced against the idea of further schooling. The family was likely to be prejudiced against the high school because it is an additional tax burden. Many were skeptical of "book farmers." It was evident that many boys were bashful and might be afraid to go to the high school building.

An important fact that came out was that in order to have an approach the surveyor should have a specific plan to discuss. A simple indefinite proposition to go to school awakens no interest. It was also evident that this plan should emphasize short courses of two or three hours instruction in the afternoon or evening for not more than 15 meetings. This instruction must be suited to a group of which the majority have only an elementary school education or less.

A tabulation by ages shows a constant decrease in the number on farms, that is, the drift to the city has begun.

Of these	18-19	years	old	there	were	203	men
" "	20-21	"	"	"	"	169	"
" "	22-23	"	"	"	"	129	"
" "	24-25	"	"	"	"	68	"

That is, the group drops two-thirds of its number in these six years. Thus the guidance factor involves not only preparation for farm work but also preparation for choice of occupation and recreation in the city. Only 8% of the group under 26 years are married. This means that most of the group go out at night and could attend evening instruction.

Four-fifths of the group are farming with their parents. Thus they have some contact with managerial and mar-

keting problems, but not their own managerial problems. Hence it would probably be wise not to proceed too rapidly towards courses dealing with managerial problems. Comparatively few participate in social organizations; only 16% belong to the Grange, and this is the largest group. They evidently need more organized social life.

To summarize, as a group they are young men under twenty-two years of age who dropped out of school before they were seventeen, after completing the eighth grade. They are single, live on home farms with their parents, do not participate very much in social events, and are undecided as to future vocation.

A similar survey ⁵ of North Carolina farm boys between the ages of 14 and 21 who had left day school was made in 1923-24 by R. H. Thomas, Supervisor of Agriculture for the State Department of Education. This study covered 500 white boys in twenty counties and 500 negro boys in 16 counties, so that the group is fairly representative of the State.

Two-fifths of the white boys attended school after the age of 16 years. The middle 50% left school when between 15.4 and 17.8 years. In this they were approximately one year older than New York State boys. Sixty-four per cent. of them left school before they had completed the seventh grade, which in North Carolina marks the end of the elementary school course. Seventy-nine per cent. of the negroes dropped out by the end of the fifth grade, as against 20% of the whites. Whereas 21.6% of the New York boys continued into high school, 36.2% of the North Carolina boys did so.

The middle 50% of the boys now on farms are 17.1 to 19.8 years old.

There is little variation on any point between coastal, Piedmont and mountain boy.

Forty per cent. live near high schools, 52% are distant

from two to six miles, 92% are within a radius of six miles from high school; that is, they can come to the central school for instruction.

The total number of these boys in the State, out of school and on farms, is 47,581.

For equipment, the State now has 22 negro schools with departments of vocational agriculture, and 67 white schools.

Eighteen per cent. of the white boys and 23% of the negroes are not living on the farm, but are away working.

As between white boys and negroes, there are not great percentage differences as to age of leaving school up to the end of the 17th year; but few negroes stayed beyond 17.

The following tabulation compares the North Carolina group with rural and urban groups in other States:

REASONS FOR LEAVING SCHOOL
PERCENTAGES FROM VARIOUS SURVEYS

	A	B	C	D	E
Economic necessity	20.8%	18.7%	19.0%	9.5%	35.0%
Dissatisfied with school	40.6%	5.9%	19.0%	10.0%	28.4%
To earn money, or wanted to work	30.2%	68.7%	38.0%	50.0%	20.0%
Required by parents .....	...	...	...	...	7.5%
Ill health	3.8%	3.4%	3.0%	4.5%	1.0%
Graduated	0.8%	2.9%	13.0%	23.0%	...
Failed in school	3.8%	0.4%	...	2.5%	8.0%

- A. North Carolina farm boys 14-21 years.
- B. New York farm boys 16-17-18 years.
- C. Cincinnati boys and girls in general and commercial evening high school. Average age 19.5 years.
- D. Cincinnati boys and girls in vocational evening classes. Average age 20.9 years.
- E. Boston boys and girls 14-16 years.

These groups show several points of similarity in their reasons for leaving school. Economic need is not so important as the combination of dissatisfaction with school

and a desire to go to work. In the case of North Carolina negro boys, however, only 14.6% left because of dissatisfaction with school; 55.2% were needed at home; and 30.2% wished to earn money.

The further description of the North Carolina boys is summarized as follows:

Nearly two-thirds of the boys or 64.0 per cent., now on the farm, work as helpers; 28.3 per cent. get a share of the crop; and 7.7 per cent. are part owners. The helpers are on an average a few months younger than the share croppers and part owners.

The average North Carolina farm boy out of school between the ages of 14 and 21 is about eighteen and one-half years of age with a seven and one-half grade education. Over three-fourths, or 80.2 per cent. of the boys are in the 17, 18, 19 and 20-year-old group with a sixth, seventh and eighth grade education. About one-fifth of the boys are included in the 14, 15, and 16-year-old group.

The negro boy differs from this general description in that he is eighteen and one-half years old with a four and one-half grade education. Or expressed in another way, the 17, 18, 19 and 20-year-old group with a fourth grade education or less presents the problem for negro boys.

From the standpoint of present ages and the amount of schooling there is not enough difference in the "boys on the farm and now farming" throughout the State to present any difficult administrative problems in providing short courses. The principal difficulty will be in providing the type of instruction suited to the needs of the boys in each community.

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CHAPTER XV

THE HOME BACKGROUND OF RURAL YOUTH

Nebraska and North Carolina homes. It is obvious that the type of educational opportunities provided should depend on the needs of the pupil. Some of the economic and social conditions determining the life of young people on the farm are described in two recent studies, one dealing with reading matter in Nebraska farm homes¹ and the other dealing with one thousand North Carolina farmers in three typical counties.² These surveys do not mention the group of young farm workers as such, but they give a striking picture of the environment of the group.

Thus, on the Nebraska farms, the reading matter of the farmers is very similar to that of the town people. Farm papers and newspapers furnish most of the reading matter, but women's magazines reach between a fourth and a fifth of the homes, and family or general magazines reach a sixth. Little attempt is made to supply children, so that less than one home in thirty-three receives a children's magazine.

The economic status of the family here, as in every other comparison on the use of educational opportunities, is an important factor. The Nebraska tenant farmer gets less periodical reading matter than the owner or part owner. He is a little farther from town and school; he moves oftener; in general he is not quite so well established as a club, lodge, or church member. Owners and tenants receive about the same material but the tenant

gets less. The hired men rely almost entirely on the owner's library; less than one sixth of them take newspapers, and an even smaller number take magazines, farm papers, or books from libraries.

For the entire group of owners, part-owners, and tenants, newspapers and farm magazines furnish reading material to 90% and 80% respectively of the homes. General magazines and women's magazines reach about 20%. Library books are received by about 5% and children's magazines by 3% or less.

The region covered by this survey is representative of the average, or better than average rural communities which could be found in any state. Yet less than two-fifths of Nebraska's total population have access to public library facilities. The Nebraska Public Library Commission maintains an efficient system of traveling libraries with reasonable regulations for supplying books to any responsible organization which applies.

The nine counties sampled for this survey give a fair cross section for the state. That means that they have an increasing percentage of native born whites, ranging from 85% to 90%. The bulk of the 14 and 15 year old children, 86%, attend school; a high percentage, (49.7%) of the 16 and 17 year group, and of the 18 to 20 year group (17%) are also in school. Less than one-half of one per cent of the 16 to 20 year group is illiterate.³

In addition to the groups in school attendance, others are exposed to the influence of the county agent's work in demonstrations and boys' and girls' clubs.

It seems impossible to estimate the relative amount of vocational and cultural instruction, or of vocational and cultural interest involved in these facts. The instruction in the clubs is focused on specific projects like scientific feed rations, making bread, canning fruit or experimenting with the advantages of carefully selected and tested seed. But it results in making better boys and girls, who

apply their instruction to habits of thrift, health, scientific thinking, and improving home living conditions. From the social contacts of the clubs or from the columns of the newspaper, farm journal or magazine they are exposed to influences which may, and undoubtedly often do, broaden their vision and their interests and help to produce a richer cultural life.

The North Carolina study portrays rural conditions in three typical counties of backward type. Lack of the most elementary education, ignorance of the simplest rules of sanitation, unscientific methods of farming, poverty which grants little time for leisure or for thought, are the outstanding factors. Here is the background of the young workers of this region.

Slightly less than half the families are farm owners; slightly more than half are tenants and croppers. It is this latter group, the landless folk, which demands attention. They live on little farms which average less than 18 acres per family. The whites slightly outnumber the negroes in this group. They plant exhaustive crops, chiefly cotton and tobacco, to the extent of over 94% in the coast and Piedmont counties, and to more than 40% in the mountain county. The negro croppers of the coastal plain produce less than a third of a glass of milk per day per individual. The mountain farmers are the only ones that produce more than a quart of milk per day per individual. They make a living, but the cash income per person of white tenants and farmers in the mountain county is less than ten cents per day, and that of the negro croppers of the coastal plain is little more. Their crops are pledged for credit before they are sown,—not the credit that means expanding business, but the credit that lives on the crop before it is produced.

The landowners have wealth per person that ranges from \$2715 for the owner landlords to \$353 for the negro owners; but the landless group have wealth ranging from

\$115 for the white tenants to \$18.58 for the negro croppers. More than 16% of all landless men are insolvent, and more than 22% of all the croppers. Most of the owners of land acquired the bulk of it through gift or inheritance. The chance is four to one against an individual's acquiring land as a result of his own successful toil.

Against this back ground of poverty one sees the life of the people. The standard of minimum comfort is generally accepted to be one and one-half rooms per person and one and one-half persons per bed. Here even the owners have more than one person per room (1.07) but the landless have 1.38, and more than two persons for each bed. Almost one-fifth of all the landless group are living in one- or two-room houses. There is not a negro family or a white tenant or cropper family in the whole area surveyed that has an indoor toilet or bath tub, and less than two per cent of the landowners have a bath tub, an indoor toilet, or running water.

Half of all the children born in the landless families come into the world attended by a mid-wife; one-fifth of all the landless families had children born dead. The landless pay more than the owners for doctors' fees, but the landowners spend more for patent medicines.

Poverty and ignorance go hand in hand. The percentage of children, six to fifteen years of age, who can not read or write ranges from 60% for the negro croppers to 19% for the white landlords. The fathers in owners families average 4.9 grades of school, the fathers in tenants and croppers only 2.55 grades, and the fathers in negro tenants and croppers less than one and one-half grades. Over 31% of the fathers and mothers in landless families can neither read nor write.

Naturally they do not read. Over sixty-five percent of the landless families take no papers or magazines. Less

than seven percent take daily papers. Of all owners, 28% take no papers or magazines; of all whites, 37%; of all negroes, 72%. Those that have Bibles are 98% of the owners and 82% of the landless. But among those who have no other book than the Bible are one-fifth of the landowners, one-half of the landless, one-third of all whites, and about one-half of all negroes. The practice of borrowing books is three times as prevalent among owners as among landless; forty times as prevalent among whites as among negroes. More than nine-tenths of all borrowed books are from school libraries.

The negro children out-strip all others in the habit of going to church. From two-thirds to three-fourths of all groups are church members and in the matter of church attendance, there is little difference between the groups.

Three times a year each person participates in some form of community recreation, but the landless participate about one-half as much as the owners, and the negroes one-half as much as the whites. For musical recreation, about one-half of the homes have one or more musical instruments, with slight distinction among the various groups, except that the landless have more talking machines, and the owners have more pianos.

What of the young workers? Seventy-five percent of the landless farmers are sons of landless farmers. In the state of North Carolina 77% of the children 14 and 15 years old are attending school; 50% of the 16 and 17 year olds; 19% of the 18 to 20 year olds. For the 16 to 20 year group these percentages are higher than those cited previously for Nebraska. But illiteracy in the 16 to 20 year group is sixteen times as great as in Nebraska, due largely to the great amount of illiteracy among the negroes. North Carolina is frequently mentioned for the notable progress it has made in recent years in the solution of its educational problems. The facts which have

been cited were learned through the efforts of North Carolina educators who seek the facts in order that they may devise suitable remedies.

Only the dark side of the picture has been drawn. One suspects that there are regions in many states where similar conditions can be found. The segments of the vicious circle are poverty, ignorance, and poor standards of living. To debate which is cause and which is result is futile. But we can make a beginning by lessening the amount of ignorance through the kind of instruction given in vocational agricultural schools. The courses for boys and the home economics work for girls are getting results in other communities which indicate that satisfactory results can be obtained by the same kind of instruction opportunities in the backward communities. Vocational education in cities has considerable justification for aiming to develop productive capacity. But vocational education in rural districts has as its crowning achievement, the translating of instruction into the many activities which go to make up the day's living rather than the day's work. The mechanic or factory worker sees at each day's end, finished shoes or automobiles, and at the end of the week his pay in cash for labor given. His cultural life tends to be apart from his employment. But the farm boy who plants must wait weeks or months for his crop and his money reward. The farm girl who makes a garment or bakes a loaf of bread does not then end her responsibility as does the factory girl who packs a box of shoes or a box of candy. The garment affects the standard of living as the loaf of bread affects the standard of health of her family. As the boys and girls of the backward rural communities are taught to plant wisely or to bake well, they break through the vicious circle and a beginning is made to lessen poverty and ignorance and to raise the standard of living. Then come thrift and physical well-being, without which the

desire for that which we call cultural is well nigh impossible.

That this remedy is recognized and is being applied in North Carolina is evidenced by the fact that during the year 1921-22, while the facts cited were being collected, the state maintained in rural regions 47 vocational agricultural day schools for whites and 18 for negroes, with a total enrollment of 1396 pupils, and at least 35 evening vocational schools enrolling 1190 whites and 395 negroes. During the next year 14 additional day schools were operated and 13 part-time schools.⁴

The extent of application of the remedy in the United States is shown by the development of vocational agricultural education, largely since 1917, until in 1924 it consisted of almost 3000 day and part-time schools enrolling 86,000 pupils. The special part-time and evening schools for young rural workers which in 1921 for the first time were recorded in the activities of the Federal Board for Vocational Education, were in 1924 reported from 26 states with a total enrollment of about 17,000 pupils.

This statement on existing schools has two important applications to the picture of rural life set forth in the preceding pages. The first is that the vocational agricultural day, part-time, and evening schools are going concerns, growing out of existing American conditions and well adapted to meet the proved needs of rural youths both before they finish their day-school attendance, and after they join the ranks of young rural workers. As they succeed in meeting the vocational needs in their respective communities, they are the logical means for meeting cultural needs. In fact one of their specific objectives is to increase the civic and vocational intelligence of the pupils.

The second application is to emphasize the fact that at present these schools enroll only 86,000. There are 7,000,000 in the 14 to 20 year group in our rural popula-

tion. Approximately 55% of the total number who enter the elementary schools never enroll in high school, and a very large proportion of those who do enroll drop out at the end of the first or second year.^{4a} An efficient machine has been designed and constructed, but at present it is available for only a small fraction of those who need it.

The 1924 annual report of the Federal Board⁵ emphasizes the fact that between three and four hundred thousand young farmers are needed each year to take up the management of farms. Less than seven per cent of all the farm boys in school are being reached in vocational classes; one-fourth of one per cent of the million and a quarter farm boys, 14 to 20 years old, and out of school are being reached in vocational classes.

The total number of adult men on farms is eight million. Of these 15,000 are reached in vocational evening classes—five times as many as the group of young workers, but less than one-fifth of one per cent of the entire group of adult male farmers.

Some average conditions.—The North Carolina survey portrays a typical backward community. An estimate of average conditions can be obtained from the 1919 survey of 10,000 rural homes in 33 northern and western states.⁶ This shows one-fifth of the homes equipped with bathtubs; one-third with running water; three-fifths with water in the kitchen and sink drains; one-half with washing machines and carpet sweepers; more than nine-tenths with screened windows and sewing machines.

One result of lack of conveniences in the farm home is that young women are leaving the farm in greater proportion than young men. Loneliness, long hours of labor and general discontent are other factors. Among the remedies suggested by the women themselves in reply to inquiry sent out by the Department of Agriculture are, first, bulletins, demonstrations and lectures; second, edu-

cation to help in finding pleasure outside of work. "Courses of reading—with circulating libraries to render the books accessible to all, and the utilizing of the local school houses for lectures and social purposes."

Needs and costs. Any picture of rural life such as has been drawn reveals the need for a general rise in the standard of living and of thinking of the people. Unless some change is made the young workers of this generation will in a few years be in no better condition than their fathers are to-day.

The facts that have been disclosed show the need for much general education ranging from as low as the second or third grade, and, for the majority of the group, starting at the seventh or eighth grade. The sizable percentages of those who left school during the high school period show the need for considerable continued general education of high school grade. But two salient facts appear:

The first is that the dominant desire of the young people to establish themselves as successful farmers causes so much of the interest, time, and energy which they are willing to devote to further education to be restricted to strictly vocational preparation, that the purely vocational courses are inevitably the ones that are offered first and that succeed best. Back in the mind of the school administrators is the plan to attach to the purely vocational material the essential related English and arithmetic; then as opportunity offers, to present studies designed to develop the civic and vocational intelligence of the pupils; eventually to go as far as possible in inducing the pupils to pursue general studies which reach toward and into the cultural field. But the combination of the interest of the pupils and the amount of opportunities which can be offered will result in postponing the offering of the general and cultural studies until increased funds make the offering advisable.

The second fact refers to the chief reason why administrators can not offer a fuller program. That reason is, lack of money.

Granting that as a nation we pay out annually, in comparison with our expenditure for education, as much for candy, twice as much for tobacco, three times as much for joy riding and pleasure, seventeen times as much for all luxuries,⁷ that fact does not help the school administrator who wishes to extend his rural educational opportunities. The first obstacle is the temperament of the farmer himself. Within his home he is the autocrat, undisputed head of the family. So his opinions tend to remain fixed. Outside his home and in contact with his neighbors he is the extreme democrat, as good as the next man. That makes for fixed opinion. Though he has neighbors, they are distant. The isolation of the farm throws him back upon himself. The net result of these three factors is that any movement looking towards consolidated effort, cooperative action, team play, encounters a passive resistance of great power. More education means more taxes to be expended for a community project of a general and intangible nature. The immediate and natural reaction of the farmer is in opposition.

We as a people have plenty of money for taxes for education,⁸ but the farmers as a group have not. The trouble is that taxes must be paid in cold cash, and on that commodity the farmer is short. He gets a large part of his living from his farm, his family is warmly clothed, well fed, satisfactorily sheltered. But those North Carolina farmers may be taken as typical of hundreds of thousands of others. The gross annual money income per family ranges from \$625 to \$225, from thirty-four cents per day per person among the white owners to twelve cents per person per day among the white tenants.⁹ Contrast their average income per family of \$437 with the \$1,501 of the family in the anthracite coal region

of Pennsylvania, and you find the chief reason why the farmers do not buy books, subscribe to newspapers and magazines, call in the doctor, or approve increased school taxes. Even though the average wealth of farmers in the United States is three times that of the North Carolina farmers, the fact remains that in comparison with city dwellers they handle little cash income.

Further, the farmer has been hit hard by the shift in distribution of taxes for education. During the decade from 1910 to 1920 the percentage of national governmental expenditures devoted to education decreased one-fourth, similar state expenditures decreased one-fifth, but the corresponding local expenditures increased one-ninth.⁸

This is not the place to present an argument for a change from our prevailing system of taxation on property to a tax on income, profits, and ability to produce. But the facts presented indicate that increased educational opportunities for young workers in rural communities will make slow growth unless supported by increased aid from state and federal funds.

The fact is that we do not know the actual ability of the farmer to pay for improvements. Dr. Galpin has shown¹⁰ a per capita farm population income of \$417 and a city per capita income of \$716 for the United States. Naturally, there are wide variations between different communities. His figures support the idea here presented of the relatively small amount of cash income of farmers, which will tend to make the farmers reluctant to increase educational opportunities by adding to their taxes. But, as to the specific question, can the farmer afford to support modern institutions, of which increased educational opportunity is only one, Dr. Galpin concludes (p. 149), that the evidence is not at hand and that it ought to be obtained by direct serious research.

Granting the willingness and the ability of the farmers

to pay; granting that on a nation-wide study of statistics the farm children show up well in comparison with city children as regards the age groups and percentages remaining in day school; nevertheless, the facts heretofore cited indicate the need of much more educational opportunity of elementary grade and high school type. Especially do rural communities need the development of high schools. Some states, like Utah and California, are already on record as favoring this development since they have enacted legislation to raise the general compulsory school age to 18 years. It is to be presumed that the general tendency to raise the compulsory school age will in the next few years cause similar legislation in other states. Such action is encouraging, not only because it provides institutions for remedying the lack of basic education, but also because these high schools are the natural starting points for more educational opportunities for the young worker group. The tendency for the county agents who are operating under the Smith-Lever Act, to cooperate with the high schools is indicated by the statement of the Secretary of Agriculture:

"The work¹¹ of cooperative extension employees, whether county agricultural agents, home department agents, boys' and girls' club agents, or other cooperative extension workers, is educational. These extension workers are public teachers paid with money largely raised from all the people by taxation and are charged with giving instruction and practical demonstrations in agriculture and home economics. Their work covers the entire rural field, which includes economic production, economic marketing, and the development of better home, community, and social conditions."

Even more marked is the tendency in the evening school work for adults and the part-time work for the younger group established under the Smith-Hughes law. The vocational high schools are aided by federal and state

funds under this act. The net result of the whole situation will be for young workers to get their share of benefit in this expanding program.

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PART III
EDUCATIONAL OPPORTUNITIES WHICH
SERVE

CHAPTER XVI

SOME GENERAL AIMS AND METHODS

BEFORE taking up in detail a description of those educational opportunities which are designed to meet the needs of young workers who have terminated their membership in all-day schools, we may dispose of some aims and methods which these institutions have more or less in common.

The European influence.—The influence of the experience of European countries is a case in point. From the days when the manual training idea was imported up to the present-day influence of the increasing adult education movement in England, in the field of humanistic and general education, there has been a tendency for us to try to profit by European experience in developing our educational agencies. Usually we find that we cannot take much more than the general idea from across the water. By the time it is modified for use with the American temperament, the American technique of industry and the general influence of the American public schools we are likely to find that we have something quite different from the European article. In this matter of educational opportunities for young workers we have a distinctly American situation arising from a compulsory day-school age usually higher than that in Europe and recently tending to go still higher. We have the extensive development of the day high school in cities and of the consolidated and vocational agricultural high school in the country. We have an extensive growth in evening schools, both

general and vocational, in the modern type of apprentice training and in the continuation school. From the very nature of their administration the last two deal with young people, and, as has been previously shown, the evening school in America is essentially a youth movement. In this country by one means or another we tend to satisfy the urge for education in youth.

Those who have the temperament and ability to pursue general or cultural education can usually do so by remaining in day school. The total number forced by poverty to drop out of school while retaining the ability and desire for more school is relatively small. The great bulk of our young people leave day school because they feel that they had enough day school.

Their chief interest, then, is to become established vocationally. They measure educational opportunities in terms of their immediate application. Because they are interested in improving themselves for a present job or for one desired in the near future, they respond to offerings of instruction on basic technical operations and on the mathematics, science, English or history which are closely related to the technical. Because they immediately encounter new social relations and civic contact both in the community and in industry, they respond to instruction in social-civic studies dealing with their immediate environment. Because the urge to get ahead in the world is pressing they see an immediate value in guidance and placement agencies and respond to such instruction.

One cannot say to what extent this natural urge of youth is increased by a temperament which is distinctly American. Evidence that this response to strictly vocational education is a characteristic of youth and that the offering meets a real need of youth is given by a survey of offerings to the same age group in other countries.¹ In England, where the provisions of the Fisher Act have

not yet been put in force, half the prescribed time in the continuation school is to be devoted to practical work, calculations and drawing. The other half is to be devoted to English and general subjects. English and general subjects cover literature, history, geography, biography, civics or citizenship, singing, appreciation of music and art, dramatic literature and lectures on health. This arrangement seems similar to that already prevailing in most American continuation schools, with perhaps a greater emphasis on humanistic subjects. The Scotch provisions are similar, with special emphasis on guidance and placement. The Swedish schools stress trades and occupations for boys and home economics work for girls, as well as language, sociology, and civics. The apprentice schools offer subjects instructing in the technique of the trade as well as its economical and legal phases. Norway proposes part-time schools in which the vocational work will take half the allotment of time, and social economics, the mother tongue and natural sciences the remainder. The German schools set three objectives of part-time education: Vocational, civic, and human training. The "kommunale" continuation schools of Denmark offer instruction two afternoons per week in practical subjects, Danish, arithmetic, writing, drawing, foreign languages and sociology. The Danish plan also contemplates continuation classes running from 18 to 30 hours weekly for from 4 to 6 winter months and a second type giving full time instruction for six months modeled very closely on the plan of the present people's high school, except that it is maintained from public funds instead of from private subscription. The aims of all of these schools and the offerings of instruction material closely resemble those of the American continuation schools. It is to be noted that attendance at these schools, both in Europe and America, is usually compulsory for certain age groups, 14-16 years, 14-18 years, or 16-18 years, as the

case may be. Choice of studies is usually restricted to the practical subjects; thus the offering of general and distinctly cultural subjects is made because the school authorities believe the pupils should have such instruction, not because the pupils themselves choose it. Where American pupils can exercise a choice, as in our evening schools, general subjects, as has been shown in previous chapters, attract from one-fourth to one-half of rather highly selected groups, and even there the motive is probably largely utilitarian.

We have nothing in this country corresponding to the Danish private people's high school, *Volkschule*.² There they get a group of young people from the peasant class at least 18 years of age who give up all other activity to attend the school for at least two six-months' courses during the winter for boys and three-months' courses during the summer for girls. These schools have been in existence since 1844. Enrollment mounted steadily until in 1914 it was over 7,000. A statistical study in 1906 showed that 31% of the young men and women in the rural districts in Denmark between 20 and 25 years of age were attending national high schools. The instruction in these schools is unique in that it is based directly on the response of the emotions rather than on what we call the learning process. All the instruction is essentially cultural, the studies being history, literature, poetry, mythology, natural sciences and mathematics. The fundamental aim of the schools is the development of a democratic and nationalistic spirit in Denmark. The schools have been remarkably successful in attaining this aim.

This Danish school has had an influence in America in the Moonlight schools of the South and probably on some types of workers' education. The writer has been unable to trace any influence on schools for young workers. At Spring Valley, Illinois, the wife of a factory owner, dis-

turbed by the recreation habits of the girls, gets them into courses on community life, wise use of leisure, reading, social relaxation, etc. A short course at Marshall, Illinois, was given during the summer of 1924 under the local school superintendent. He provided all-day work for men and a daily two-hour course for women. They came in every day in automobiles and were much interested in courses in reading. At Morris, Minnesota, courses are given providing four or five months of residence study and from four to six months supervised project work during the year. This school, however, does not seem to differ greatly from the usual American vocational agricultural school, except that it provides the intensive short-term opportunity for young rural workers. At Pontiac, Illinois, during the past three years, and at Geneseo for about twelve years, dull-season courses, usually during January and February, have been given. These extend for about six weeks, and offer courses which are largely vocational. Similar work is offered in the "lay-by" schools of the South in the dull season that comes between crops. A general impression gathered from conversations with directors of agricultural education is that the temperament of the American farm youth responds best to rather short courses which are distinctly vocational; that in our full-year vocational agricultural schools we provide an American equivalent to the offering of the Danish school; and that if we could get a group of pupils for a period longer than six weeks we could get them for the full year. Always, however, the point stands out that the stress in the American schools is on vocational agriculture, with related subjects, and home economics. It certainly is not on the cultural and emotional appeal which prevails in the Danish schools. The essential difference seems to be that in the American schools, while it is recognized that the real vitalizing influence is the personality and initia-

tive of the teacher, nevertheless the emphasis of instruction is on subject-matter. In the Danish school subject-matter is subordinated, and the essence of the whole movement comes from the personal contact between teacher and pupil which is maintained not only in the classroom but in outdoor activities and in long hours spent before the evening fire.

Common aims.—Four general aims are seen in much of our American teaching, whether in day schools or in schools for young workers. These are the development of the pupil along the lines of vocational aptitude, physical well-being, social-civic spirit and cultural appreciation. The importance of health development is admitted without discussion, and the value of culture is accepted as a tradition of the educational system which we inherited. Beginning between 1900 and 1905 the need of specific education for young workers attracted so much attention, and the advocates of vocational education made such strenuous efforts to install real vocational training, that undoubtedly the pendulum was pushed hard in that direction in the hope that when it did come to rest there would be a better condition of balance. The result was that cultural education was put on the defensive.

Later the trend towards the social-civic objective developed. This has been well expressed by Payson Smith: "The thing that impresses me as most significant in our educational development of the last few years is the change in our objective from one of individual gain to that of service. Ten years ago we believed in education for the help it gave to the individual; it enabled him to get ahead, to make money, to become financially successful. It was talked by the parents to the child, by the teacher to the student. Now we do not say that nearly so much. The whole philosophy of the schools has been transformed. It has become socialized. Now we say, 'If

you get an education it will enable you to understand other people, to get the other person's point of view; it makes you compassionate; you will be more helpful; you can serve better and work better with others in this service.' " 3

The need for brevity forbids detailed discussion on general vocational or general home economic instruction in day schools or on specific vocational instruction in either public or endowed trade schools. In these the pupils have not yet become young workers. Y. M. C. A. schools and correspondence schools are touched only lightly because they tend to get a group older than the young workers. On the other hand, cooperative schools, both commercial and industrial, enroll pupils who are so distinctly in the transition stage from school to work that they must be considered. The same applies to vocational agricultural high schools. The other types dealing directly with the young workers are apprentice schools in plants or under the cooperation of plants, labor unions and schools; evening schools, whether public, general or vocational, or privately-endowed evening classes; and continuation schools. The stated objectives of the cooperative schools and continuation schools contemplate instruction in the four fields of vocation, health, civic intelligence and culture. The apprentice school places the greatest emphasis on vocation, a little on health, especially in the matter of safety instruction, still less on civic instruction, and virtually none on culture, as the term is ordinarily used. In all the foregoing the course is virtually prescribed, choice on the part of the pupil being limited to the selection of the vocational subject. Therefore the instruction suffers wherever the compulsory feature is in conflict with the interest of the individual pupil.

The evening school is purely voluntary. Figures have already been given on the extent to which pupils choose vocational and utilitarian courses.

Getting instruction material. All of these schools were confronted with the problem of getting instruction material and a method of instruction which would really train young workers for their jobs. This procedure is now well standardized. The first step is to make a local survey of the kind that has been abundantly illustrated in the preceding pages. This survey reveals the needs of the pupils and the local opportunities for using the instruction given to them.

The next step is to make an analysis, usually called a job analysis. Job analysis as the term is now employed was first used in Massachusetts in training experienced mechanics to become instructors in vocational schools. Charles R. Allen, first as agent for the State Board of Education, and later in the training of shipyard workers during the World War, developed this method which is now used with local modification in all parts of the United States, both in schools and plants.⁴

The basic idea of job analysis is not new. It is very largely the pedagogical philosophy of Herbart expressed in terms of industry. Every text-book in mathematics, science, geography, English, or other subject, is, or should be, constructed according to the principles of job analysis. Every good teacher always has either consciously or unconsciously used the method of job analysis.

Then why not use text-books instead of making a job analysis? Because in the field of industry text-books scientifically constructed for instruction are practically nonexistent; in the field of vocational education, text-books in general have not yet emerged from the experimental stage; and in the field of general education the tendency is for text-books to lag many years behind the changes in industrial, social, and economic life which are affecting the careers of our pupils. Wherever there is an excellent text-book, by all means use it, for an excellent text-book is simply an excellent piece of job analysis. Every good

teacher, however, uses a considerable amount of original material in instruction. Motivated school work and instruction applied and made to function in the lives of the pupils involve the accumulating and classifying of a mass of material not found in ordinary text-books. The teacher who knows how to use the methods of job analysis, handles this material by a process of effective scientific planning instead of depending upon fortuitous intuition.

What are some of the essential principles of job analysis?

The first is to determine *what* to teach.

The second is to determine *when* to teach.

The third is to determine *how* to teach.

What to teach.—To determine *what* to teach involves these steps:

1. The field of research is limited, for instance, to a single trade, like house carpentry; to a department like the shipping room; or to a definite instruction purpose like health instruction or mathematics instruction.

2. A preliminary study of one of these fields shows that it is made up of many jobs, or things to be done. That means from the point of view of instruction, things to be learned by the pupil. This preliminary study is made by listing a number of jobs or things to be done, as, in house carpentry, driving a nail, sawing a board, planing an edge; or in health instruction, brushing the teeth, sleeping in a well ventilated room, sounding an auto horn at a street crossing.

3. Further study shows that these jobs can be grouped in sections or units, or blocks. Thus in house carpentry an entire group of jobs or things to be learned is connected with floor laying; in health instruction one group of jobs deals with keeping our bodies strong and healthy, this being the block or unit of Personal Hygiene; another group of jobs deals with responsibility for the comfort and welfare of others, the block or unit of Safety First instruction.

The selection of blocks or units in an industrial course is usually determined by one of three items, namely, *machines or tools*, *operations*, or *materials*. But sometimes it is determined by *departments* or *associations*. In like manner the blocks of a subject like hygiene, civics, or English may be determined by *operations* like making sentences, making paragraphs, or by the use of *tools* like nouns, verbs, phrases, or by *associations* like the Safety First lessons in health instruction.

4. Having determined the blocks or units of the course, the next steps is to pick out the essential jobs or things to be learned and list each one in its proper unit. Lack of time for instruction prevents using all the jobs which can be listed. Therefore, a selection must be made. At least two important considerations determine this selection of what to include.

- a. Some items are essential because they are part of the fundamental education an average worker or citizen should have in this field.
- b. Some items are retained and others rejected according to their value in motivating work and appealing to the interest of the pupils. This completes the analysis of *what* to teach.

When to teach.—The material must now be arranged according to the requirements of *when* to teach. The old language of pedagogy utters certain axioms:

Proceed from the known to the unknown, from the less difficult to the more difficult, from the simple to the complex.

The new language of job analysis utters the same truths in different words:—

Determine the difficulty factors—not the things which you as instructor think cause difficulty, but the things the pupil finds to be difficulties. Present the jobs in the sequence of learning difficulty. Begin with something he knows and so bring him along to the new knowledge.

The old pedagogy says—Strike while the iron is hot. Arouse the pupil's interest and his industry will naturally follow.

Job analysis says—Into each lesson incorporate the related

English, mathematics, science, or safety principle. Let them be studied and learned as parts of this job, not as abstractions.

The old pedagogy ruled that in the kindergarten and in the first two or three grades the psychological method of instruction was proper and that the teacher should follow the unfolding of the child's interests; but that after the third grade the logical method of instruction should prevail and the pupil be taught not the things which child psychology determines to be really interesting to children, but the things which the adult logic of the teacher determines ought to be interesting.

Job analysis says—Don't be a sentimentalist or a molly-coddle, but nevertheless use the kindergarten method, not only in the upper grades of the school but even in the turmoil of the shipyard.

Now both the old pedagogy and the new job analysis emphasize two important factors which affect the matter of *when* to teach. These are *sequence* and *progression*. That is, when a series of jobs or lessons is properly arranged in the sequence indicated by instructional difficulties, the pupil will naturally use each lesson as a foundation for the one which follows. If a given lesson presents five factors of difficulty, we will not have the pupil begin with that lesson, but will have him proceed through other lessons each of which disposes of one of these difficulties, so that when he finally undertakes that lesson the new difficulties involved are not more than can be surmounted with reasonable effort.

Job analysis is no more than a scientific method for laying out a course of lessons. The aim of the course is accomplished when, and only when, the instructor has worked out in written form a defensible series of lessons.

Such courses as hygiene, civics, occupational analysis, or industrial geography depend very little on sequence or progression. They break up into a series of unit lessons, each more or less independent of others. Here job analysis helps in determining *what* to teach, but progression factors or difficulty factors have slight importance in determining *when* to teach.

Sequence and progression are very important in courses in arithmetic and English when such courses are pursued for

the first time. But the pupils in young worker classes have usually already covered most of the fundamentals in arithmetic and English. Their weakness is that they do not know how to apply what has been taught them. They need constant drill and application on principles which they have previously studied. So conventional sequence is not of prime importance.

It is in the practical courses that the items of sequence and progression are most important. Here it is desirable, and in most cases, necessary, for the pupil to begin with the first lesson and to take the subsequent lessons in sequence. But the shop instructor accepts this arrangement. Even though all the pupils in the class begin at the same time differences in speed cause them to spread out in the course of a few weeks. The sequence of the practical arts work determines the sequence of the related English, mathematics, science, etc. Unless the academic teacher who gives instruction in these subjects knows the principles of job analysis, this related work cannot be presented effectively. In general the difficulty factors which determine the sequence of jobs are found on the mechanical side of the work, but sometimes the mathematics or the science related to the job involves a difficulty factor which determines the place of this particular job in the whole sequence.

From the point of view just presented, each teacher makes out a set of lesson sheets.

How to teach:

To a trained teacher, job analysis presents nothing new on teaching method. The obvious points in planning a lesson are: Preparation, presentation, application, testing. This part of the scheme is, however, of special value to the teacher of young workers. All of them need to be impressed with the fact that most of their pupils left school and went to work because they did not like to go to school.

The reasons for dislike are:

1. They did not learn, or
2. They were not interested.

Generally if they did not learn it was because the Preparation Step of teaching did not function. The approach to the lesson did not capture the attention of the child. The proper apperceptive basis was lacking. Or they learned the lesson up to the point of testing. At the point where the lesson should be applied in some practical form, they were kept busy on abstract theory and so they lost interest. These facts are of great importance in young worker instruction. We must have classes small enough for individual instruction, we must plan our work carefully in advance each week, we must know our children, else we shall fail on *how* to teach at the preparation step of the lesson. We must make visits to the places of employment and the homes of the pupils, we must have close cooperation between vocational teachers and academic teachers, we must see that our instruction functions eventually in a real life activity of the pupil, else we shall fail at the testing step of the lesson.

It will be noted that the use of the job analysis method of laying out instruction material reduces the material to the minimum essentials. In so far as there is need for specific knowledge of mathematics, science, safety-precaution, geography or history, these facts are attached to the instruction of the particular job under the name of related work. Only small samples of the completed material can be shown here. The lay-out for the machinist's trade alone, for instance, forms a bulletin of more than a hundred closely printed pages, and other analyses are equally bulky. Typical detailed analyses are given in Federal Board for Vocational Education Bulletin 52, Machinist Trade; Bulletin 67, Analysis of the Pottery Industry; Bulletin 69, Railway Boilermakers; Bulletin 75, Analyzing a Poultry Enterprise; Bulletin 95, Brick-laying. At least ten similar bulletins are issued by the Division of Vocational Education, University of California.

An example of typical job analysis results in the pot-

tery industry is given below. It represents, approximately, one page in a closely printed bulletin of 86 pages of similar material.⁵

Name of pay-roll job.—Jigger-man helper.

Lines of promotion.

(a) Kinds of work: Batting out, tending and cleaning machine, running.

(b) Advance to: Jiggering.

(c) Requirements to advance: Skill on jigger.

Qualifications for employment.

Sex—men or women. Skill—medium. Educational and mental requirement—special knowledge, special skill, reliability, temperament, disposition, experience. Physical—light, active, strong, dexterous, eyesight. Age at entrance—16 years

Job.

Jiggering. Turns out ware ready for drying-machine job.

One man and a helper. (Usually one or two helpers.)

Objective.

Man can operate and set his machine on any kind of ware that is made by this process.

Auxiliary information.

1. Trade terms:

Material—Body, clay, bat, green ware, white ware, leather hard, taffy green, watermark, lining, ball, slip.

Machines, tools, equipment—Jigger, spreader, batting block, jigger head, jigger rings, Sampson post, throwing wheel, chum, mold, tool, dish tool, cup tool, etc., frog, finger stall, rubber, pricker, drying bars, dryer, steelyards.

Operating—Setting tool, setting stop, gauging, batting out, throwing on mold, pulling scrap, jiggering, setting or drying, trimming, scrapping, running down linings by hand, running up linings by hand.

Special—Winding the bat, flush, cup crew, lining maker, finisher, turner, pricking the bat.

2. Stock.

Recognition—None.

Working properties—Must throw out worn molds. Must have clay wet enough to prevent tearing, but not leave watermarks.

3. Care of tools and equipment:

Return tool at once to tool room when finished. Wipe tool dry and oil cutting edge when finished. Wet tools rust; the rust gets in clay and causes iron spots in the ware, also spoils tool.

See that jigger head runs true and that jigger rings fit properly. If not, report to foreman at once.

Watch ware and report unevenness in drying in a stove room. This must be attended to at once. Molds must not be allowed to get too hot. Request new molds before old ones are entirely worn out.

4. Safety:

Care not to catch hand under the tool in setting down the bat. Do not get the fingers between the friction rubber and disc of a throwing wheel.

Mathematics:

1. Must be able to estimate by eye amount of clay required for a bat or any given piece, also the thickness of the bat by eye.
2. Must know how to get correct thickness for each type of article. Specifications usually marked on tool, and must set stop using a steel gauge.
3. Linear measure by eye or rule or gauge to $\frac{1}{16}$ inch.

Drawing:

None.

Science:

1. Effect of water on clay.
2. Clay shrinks on removal of water.
3. Water evaporates quickly in warm dry air and in changing or circulating air.
4. Heavy ware holds more water and can stand more heat. Lower temperature and forced ventilation in store-room circulation is better for drying than warm room.

Above certain temperature mold is burnt, i.e., loses some of water of crystallization and becomes rotten.

Such specifications are applied to working out detail for lessons as shown in this analysis of the first step in the training of a lathe hand in the machinist trade.⁶ There are fifteen such steps or levels of difficulty in lathe work.

Type job specifications: Rough straight turning on medium-size stock between centers. Stock not over 2 inches diameter. Stock in machine or already centered. One diameter only to $\frac{1}{32}$ inch oversize. Automatic longitudinal feed. Machine set for speed and oiled by instructor. Job done on 12 to 16 inch engine lathe.

Objective: Man can take piece of centered stock, put it in machine, pick out right tool, set tool correctly, and turn diameter within $\frac{1}{32}$ inch of given dimension.

Auxiliary information: Recognition of stock and some knowledge of working properties. Trade terms, names of parts of machine and names of tools so far as they relate to this class of work. Safety precautions; care of tools and machine. He understands damage due to use of too long a wrench.

Trade mathematics: Linear measurement; laying out of machinist's rule; use of calipers set by reference to another piece or from rule. Fractions $\frac{1}{2}$ to $\frac{1}{32}$.

Trade drawing: Dimensions given verbally or orally.

Trade science: Need for lubrication of dead center. Expansion of work due to heating. Use of screw to produce great pressure and hold it. Use of screw to move parts of machine and hold them in place. Use of friction to drive parts of machine and use of friction as a locking device.

It is now necessary to translate such specifications as those given above into specific instructions for a specific job. This layout is called a lesson sheet. It may consist of two parts, one for use in the shop and the other

for use in the classroom, or both sections may be combined. It is placed in the hands of the pupil who, by following the outline, can accomplish his task with occasional individual instruction or group instruction from the shop teacher or the academic teacher.⁷

Lesson Sheet.

Lesson No.—Job, 1 Nail Box, $2\frac{1}{4}'' \times 3\frac{3}{4}'' \times 10''$, outside dimensions. A simple perspective drawing showing dimensions is on the lesson sheet or on the blackboard.

Material from Stock.

1 pc. W.P. $\frac{1}{2}'' \times 2'' \times 30\frac{1}{4}''$

1 pc. W.P. $\frac{1}{2}'' \times 4'' \times 10\frac{1}{4}''$

Finished Dimensions.

2 pc. $\frac{3}{8}'' \times 17\frac{7}{8}'' \times 10''$side pieces

3 pc. $\frac{3}{8}'' \times 17\frac{7}{8}'' \times 3''$cross pieces

1 pc. $\frac{3}{8}'' \times 3\frac{3}{4}'' \times 10''$bottom piece

Operations.

(1) Select stock; (2) cut off to rough dimensions; (3) plane faces and edges of combined side and cross pieces; (4) gauge to thickness and width; (5) plane to thickness and width; (6) lay out lengths for side and cross pieces; (7) cut to length; (8) square ends if necessary; (9) assemble sides and cross pieces; (10) plane bottom piece, gauge, plane to gauge, lay out and cut to length; (11) assemble sides and cross pieces, mark and nail; (12) square side pieces with bottom and nail; (13) set nails, plane bottom flush with side; (14) sandpaper outside.

Cautions.

(1) Set nails proper depth; (2) do not round edges in sand papering.

Related drawing.

(1) Freehand working drawing with dimensions; (2) mechanical drawing, three views. Assembly drawing showing position of nails. Scale 3'' equal 1 ft. Figure dimensions of rough stock and finished stock from drawing.

Safety and care of tools.

- (1) Avoid cutting the hand in using back saw; (2) careful use of plane over set nails.

Trade terms.

- (1) Butt joint; (2) gauge; (3) assemble; (4) lay out or lay off.

Related English.

Read and discuss Wood and Smith Prevocational Industrial Arts, p. 42. Nails and Wood Fasteners, p. 92. Classification of the terms used on pages 92 and 93.

Related mathematics.

- (1) Figure cost of rough stock for one box; (2) include nails in figuring cost; (3) discuss overhead cost; (4) discuss and estimate approximate percentage of waste stock; (5) figure cost of equipping 10 work benches with nail boxes.

Related guidance.

Gowin and Wheatley—Occupations Ch. IX, The Building Trades. Davis—Vocational and Moral Guidance, Ch. VIII, Choosing a Vocation. Local opportunity in carpentry.

Industrial geography.

Dryer—Elementary Economic Geography, pp. 138-140. Smith—Commerce and Industry—Lumber. Get prices and uses of lumber handled in local yards, especially the white pine used for the nail box.

When each one of the lessons indicated by a job analysis is worked out in detail on a separate lesson-sheet or instruction-sheet, the use of text-books, except for reference purposes, is largely avoided. All kinds of modifications occur in the amount of detail and in the extent to which the instruction is divided between teachers of shop subjects and teachers of related or academic subjects. Teachers of industrial, home economics, commercial and agricultural subjects modify the analysis to meet their own needs. Teachers of academic subjects modify it still further.

Thus we have developed a distinctively American method of selecting instruction material. It avoids the haphazard instructions which characterized the best of the old apprentice training, it extracts the instructional content which may be in the poorest of blind-alley jobs, and it injects thoroughness, speed and variety of experience into the period of training. It is used extensively in all vocational schools and classes but is practically unknown among teachers of general classes in evening schools.

It is evident that the use of such material immediately raises the old question whether education should be for immediate use or for deferred use. Inasmuch as the chief stress in classes for young workers is on education either for use at once or for use in the very near future, it follows that there is a constant tendency to select from the field of general education only the minimum essentials and to omit entirely cultural studies. Except as cultural studies are purposely included in cooperative classes or part-time schools, or are taken up later on a voluntary basis by the individual youth, they do not enter at all into this plan of education. The advocates of vocational education claim that joy in work, pride of craftsmanship, the use of instruments of precision or of materials of beauty, have in themselves distinct cultural value. They claim that our museums, which are the repositories of culture, are in fact chiefly filled with specimens of the handicraft of a former age. They claim that it is better to instruct young workers in craftsmanship and related knowledge in which they really are interested than to try to force upon them general education or distinctly cultural studies which the young workers have repudiated by the very fact that they have left school and gone to work.

Job analysis and the use of the lesson sheet make individual instruction a practical possibility and enable each pupil to progress at his own rate of speed. This same

idea of analysis applied to instruction material and instruction method is used to define the so-called Case Groups. If the description of any of the type groups presented in Chapter X were condensed to a terse statement of salient characteristics, the instructor could then proceed to develop a course in hygiene, civics, economics, or any other subject which lends itself to presentation to a group rather than to an individual. As a matter of fact, this is done rather extensively in continuation schools in such subjects as hygiene, civics and elementary economics. The skeleton outline of analysis does not stand out so distinctly in subjects like appreciation of music, literature, and beauty of fabric or color harmony. Nevertheless, teachers in continuation schools, either by intuition or by analysis, determine a need in these fields for their pupils. The same sort of thing happens in a girls' cooperative class dealing with department-store fabrics, or in a boys' cooperative printing class discussing an artistic layout or an illuminated text. One cannot give a quantitative statement as to the amount of cultural value which thus runs through instruction for young workers as it is actually presented in the school. It is, however, a fair statement to say that the net result of using the methods of job analysis and group analysis tends to emphasize vocational, physical and civic aspects and to minimize cultural aspects.

Training teachers.—The point of view and specific skill in analysis and in choice of teaching method are instilled into teachers through special training courses provided for those who are instructing young workers. Usually the first unit of this training is designed to inform the teachers on the economic background of the group of young workers which they will handle, on the different types of schools, and on the general objectives of those schools. A second unit gives thorough instruction on the

method of making a job analysis. This is necessarily much more intensive for teachers of industrial, home economics, agricultural and commercial work than it is for teachers of academic subjects. A course of from thirty to sixty lessons is usually required to enable teachers to grasp the method of analysis. This is followed by a course at least as long in which the teacher translates the general method into a set of lesson sheets limited to a single subject. The third step is to work out teaching methods adapted to use with young workers. Academic teachers, because of previous training and experience, cover this step very rapidly but shop teachers brought in from the trade need considerable training. To attempt to go into detail on this point would require space far beyond the limits of this report. Therefore at the risk of being considered didactic one can only say that the demonstration method in practical work and the discussion method in class work usually prove most effective in dealing with young workers. Exercise methods in shop work, recitation and text-book methods in class work, and the lecture system in any kind of work make little appeal to young workers. One suspects that if extension instructors would emphasize discussion rather than lecture, and if evening school teachers would drop their day school methods and stimulate discussion in their evening classes, young workers would respond more readily than they now do to offerings in general and cultural education.

In all this teacher-training work much emphasis is placed on the development of sympathetic understanding between teacher and pupil in order that guidance may permeate all phases of school contact; on small classes in order that instruction may be so far as possible on an individual basis; and on "follow-up" or coordinating work in order that, on the basis of fact, instruc-

tion may be modified to meet the special needs of the job, the home, or the personality of the pupil.

For guidance specialists' training is directed towards analysis of occupations rather than analysis of jobs. The purpose of job analysis is to develop instruction material. The purpose of occupation analysis is to get material which will help pupils make a choice of occupations or of instruction helpful in the chosen occupation, and to help the guidance expert in the wise placement of pupils.

In the foregoing pages of this chapter considerable stress had been laid on the fact that schools for young workers tend to stress vocational education and to touch lightly on cultural education. It is therefore important to emphasize that the vocational education which is offered carries a richness of content which is all too often not realized by persons not in close contact with vocational schools. This may be illustrated by a bit of detail from a typical vocational teacher-training course. The instance is taken from Ohio. It might as easily have been taken from any one of twenty other states.

Ohio offers seven courses for training industrial teachers. Each of these courses carries two semester hours of college credit with, to cite one institution, the Cleveland School of Education and Western Reserve University. The seven courses are entitled trade analysis; theory of trade teaching; principles of trade teaching; administration of vocational education; methods of teaching related subjects; methods of teaching shop subjects; and practice and observation teaching.⁸ The scope of just one of these courses, Theory of Trade Teaching, indicates the breadth of view expected of the modern industrial teacher. One would not expect a teacher who had pursued this course or the other half dozen of equal scope to teach his pupils in a way which would be deadening to cultural aspirations.

The objectives of the course are to give the teacher a

historical background of the development of vocational education; to cultivate an appreciation of the stages of educational thought through which we have passed in order to arrive at our present conception of vocational education; to discuss plans for the future development of vocational teaching in view of a changing social order.

The course, through discussion, reports and assigned readings on authoritative writings in education, covers the vocational nature of early education, the meaning of education, the distinction between a vocation and trade knowledge, and the changing needs of education in trades and industries. It deals with the rise of modern vocational education movements in Europe and America, their development and the present basis of school organization. It takes up employment conditions, the influence of machinery on vocational education, labor turnover and industrial relations. It surveys the home as to parental guidance, the school as to vocational counsel, and industry as to opportunities for training and supervision. Economic phases and social phases are studied in detail. The course comes to the present moment in reviewing the adult education movement in foreign countries and looks forward to probable future relations between schools and industry. The foregoing is a fair sample of the ideas that are being impressed upon vocational teachers. It certainly does not indicate that our young workers are being taught by instructors who have a narrow point of view.

To summarize, we have here a distinctly American problem. These schools offer instruction in vocational, physical, social-civic and cultural subjects, with the stress chiefly on the vocational and social-civic. Instruction material is largely developed by a process of scientific analysis. The special training of teachers is an essential of success.

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CHAPTER XVII

COOPERATIVE SCHOOLS

Cooperative Courses in Industry. The story of the development of cooperative courses was given in Chapter VII. Although the pupils enrolled have not yet left day school they have already entered the ranks of young workers to the extent that they hold regular positions in industry, receive wages, and usually earn a substantial credit which counts later on their apprenticeship period. In fact this type of school is distinctly a modern equivalent of the old apprentice training. It is especially adaptable for training for occupations in which the extensive subdivision of labor makes it inadvisable or impossible to provide practical working conditions in the school. The chief advantages of the plan are that it enables the pupil to acquire a good general education, while it satisfies his urge to work at a real job and makes a close contact between school instruction and the immediate interests of the pupil as well as the practical demands of industry.¹

The relatively low cost and ease of administration cause it to be well adapted to conditions in the town of ten thousand population or less, as well as to those in the larger cities. It avoids high cost of initial equipment, such as is required for unit trade courses and general industrial courses. The per capita cost is relatively low because somewhat larger classes can be carried than in the case of the other types. It is easily incorporated

into a comprehensive high school program, gives pupils experience in shop work on a useful or productive basis without encountering difficulties as to the disposal of the product and assures employers of a steady supply of apprentices while ~~minimizing~~^{min} the danger of overcrowding a particular craft. In general it is acceptable both to employers and labor unions as indicated by the fact that they give generous credit on the later apprenticeship period.

Cooperative courses offer a remedy for several of the serious problems presented in our previous description of young workers. Pupils who would otherwise be forced by economic necessity to leave school have the opportunity to earn enough money to enable them to remain in school. Waste of time, energy and previously acquired education is avoided by retaining pupils in school and at the same time placing them in jobs with a real future. Aimless shifting in employment ceases. Juvenile delinquency is checked by providing interesting experiences and close supervision.

The usual present practice is to enroll in these courses pupils more than 16 years of age; but in such places, for instance, as Cincinnati, where cooperative courses are open to the 14-16 year group, the prevention of wastage is a very valuable feature. Because at present most mechanical positions are filled by persons who have had not more than an eighth-grade education, it is to be hoped that cooperative courses will be established for those younger than the bulk of the pupils at present enrolled. At present the cooperating industries are usually those of the higher type, where it is difficult to place boys and girls under 16 years of age. Our usual American practice is to start a promising educational venture and to begin promptly to use it as a selective agency which eliminates the so-called less desirable pupil. There is urgent need that cooperative courses should not become more highly

selective, but that this type of school should extend downwards and act as a preventive remedy for the group which enters low-grade industry.

Where this has been tried, experience has shown that a large percentage of pupils will be ^{able} to follow such a course for several years beyond the period at which they otherwise would have left school.

These courses are usually organized on a half-school and half-work basis, although in the Southern states in connection with the textile industry it is usual to find the pupils working five hours a day and attending school three hours a day. Elsewhere experience has shown that the week-in and week-out plan is preferable. The plan calls for two pupils on each job, so that the employer has constant service while the pupils alternate at school. Pupils are usually paid at regular apprenticeship rates for the time spent in employment. In a state in which the labor laws do not permit the employment of children below the age of 16 in factories such pupils are not paid for time spent in employment.

Pupils state that they become tired, but not unduly fatigued, by the week in industry and that on the first day of the shift they have some difficulty in picking up either school work or factory work. On the other hand, they state that they approach either the school or the factory with renewed zest and that on the whole they feel that they are making satisfactory progress both in school and on the job.

The courses may run from one year to five years; the usual arrangement is on a two-year basis. This gives the advantage of furnishing workers old enough to comply with state labor laws, and old enough to know their own minds with regard to making a vocational choice. It also gives the school an opportunity to prepare the child fairly well for the initial job. The two-year courses usually run 11 months each year. In general, school instruction

is supplemental to employment training, that is, school shops are used for illustration and demonstration purposes rather than for direct technical training. The emphasis in the school is on the drawing, science, mathematics and civics. ^{and} material needed to round out the practical experience on the job.

A typical two-year course offers:

Junior year—

English, five periods a week; plain geometry or advanced algebra, five periods; physics, ten periods; mechanical drawing, ten periods; shop mathematics, three periods; coordination, two periods; United States history and civics, five periods.

Senior year—

English, five periods; advanced algebra or solid geometry and trigonometry, five periods; chemistry, ten periods; mechanical drawing, ten periods; shop mathematics, three periods; coordination, two periods.

The “coordination” lessons consist of lectures and discussion on safety, health, and current industrial topics. It is not to be confused with the coordination work of the instructor; the latter consists of visits to places of employment for the purpose of getting fact material which can be used during these periods with the pupil.

The arrangement used in the York, Pennsylvania, school provides that boys spend their first year entirely in the high school and are apprenticed at the close of the first year. The four-year course covers these subjects:

Freshman year—

English, arithmetic, algebra, general science, mechanics of the trade, mechanical drawing.

Sophomore year—

English, algebra, geometry, Spanish or French, mechanics of the trade, mechanical drawing.

Junior year—

English, geometry, trigonometry, physics, Spanish or French, mechanics of the trade, mechanical drawing.

Senior year—

English, physics, chemistry, history, mechanics of the trade, mechanical drawing.

In addition to the foregoing school studies the boy receives during four years a total of 5,400 hours of employment experience of kinds specified in a contract with the employer.

The method of instruction may be to present the course as a series of independent subjects such as is done in usual high school work; or it may be presented by relating the school subject to the successive basic operations or experience in employment by the scheme of lesson plans suggested in the previous chapter.

Standards for work in English suggest that the aim is to improve the student's use of oral and written English in the general field of work he is preparing to enter, and also to build up his power of using English in an intelligent manner to secure desired information. This implies training in the use of the dictionary, encyclopedias, public library and public reading rooms. It should aim to give training to the worker to enable him to make intelligent use of his spare time for recreation and self-improvement. Some special attention should be devoted to stimulating an appreciation of the field of classical and contemporary literature for cultural and recreational purposes.

In shop mathematics there is considerable departure from the usual high school procedure. The range is from simple arithmetical operations to applications of geometry and trigonometry. Basic principles and methods are interpreted for application to industrial formulæ, steel scales, micrometer, vernier caliper, the em scale of the printer and the steel square or two-foot rule of the car-

penter. This involves the use of tables of squares and square roots, functions of angles, decimal equivalents, etc. Therefore the content of the course is not determined by any system of logical development but by the particular demands of the occupation itself.

Trade science is developed along much the same lines. The aim is to acquaint the pupils with a practical knowledge of scientific principles and their applications so as to stimulate their imaginative and creative powers.

Industrial history aims to develop the civic and vocational intelligence of the pupils through a study of the industrial and economic history of various countries, the improvement of conditions of employment and standards of living, the enactment of better laws, the development of machinery and better methods of production, and the proper relationship between labor and capital in developing the highest type of social and civic life.

It frequently happens that pupils who pursue cooperative courses later decide to enter higher institutions, especially engineering schools. There is a growing tendency to accept this work as full or partial satisfaction of entrance requirements. Either by a brief period of further preparation or by conditional entrance to the higher institution such pupils are enabled to go on. The cooperative course illustrates a principle which runs through all phases of educational offerings for young workers. That is, to prolong the period of instruction so that each individual may attain his maximum level and those of superior ability who might otherwise have been doomed to subordinate positions may find a way up and out to the attainment of their fullest capacity.

The description of the cooperative school may be summarized as follows: Most of the pupils are from 16-18 or 14-18 years old. While the 14-16 year group is not yet extensively enrolled in this type of school, there are no serious obstacles to a considerable growth of these schools

for this group. As compulsory schooling age is raised in various states there should be decided increase in the number of these schools. Exact figures on enrollment cannot be obtained because statistical counts frequently do not distinguish between cooperative day-school pupils, cooperative work for apprentices and cooperative commercial work, in which the amount of time spent in employment may be reduced to late afternoon, Saturday and vacation work. The special purpose of the pupils and the objectives of the school are to prepare for specific employment, although frequently pupils find themselves and go on to higher institutions. The schools are usually well housed and well equipped. Specially trained teachers are used, particularly after experience has shown the need for such training. Communities which try to use "regular" teachers speedily find that special training is necessary. The relative efficiency of these schools is high. Comparative costs are illustrated by figures from Cincinnati.² The high school instruction cost per pupil is \$115. The cooperative school cost ranges from \$28 to \$74.

Cooperative Courses in Commerce. All of the basic principles which have just been presented on cooperative courses in industry apply to cooperative courses in commerce. In actual practice, however, we note these important differences: Employment is usually restricted to large department stores, with the result that most of the work is given in the larger cities. The week-in, week-out plan is not so extensively used as in industrial courses, but pupils get their store experience during afternoons, Saturdays and vacations. The period of store experience is likely to be restricted to the senior year of high school and even to the last half of that year. The regular courses of the high school take up a much larger portion of the pupils' weekly program than in the case of the industrial courses. The work is not so widespread as shown by the listing of only eight cities in Dr. Turner's

study,³ as against twenty-two in industry. Experience with these classes has some tendency to cause employers to raise the age and schooling requirements for the entrance of juvenile workers, but since this is at present restricted only to the better stores in the larger cities the general effect is not great. Nevertheless the expansion of these schools will emphasize this tendency as time goes on.

At present the work is confined almost entirely to retail selling. This tends to limit the training opportunity to the highly selected junior and senior high school group and unfortunately disregards the much more numerous opportunities for training for other store positions. The continuation schools, as will be shown later, are more democratic and are offering increasing opportunities on a wide scale for store positions. The Cincinnati schools with their customary genius for getting at a real need carry their cooperative plan down to a 14-16-year-old group of boys and girls who engage in the usual routine store jobs. This is in addition to the retail selling courses.

A widespread and pernicious practice of department stores has been to lure boys and girls out of school on the promise of employment for special sales. At the end of a few days these pupils were discharged to swell the ranks of the unemployed. This practice tends to be reduced and even eliminated in places where the entire group of cooperative pupils can be thrown into the stores for such emergency work. Bad practices of the kind mentioned are likely to be unobserved for a long time. Then an extension of school activities reveals the situation, and partly through the aroused opposition of school people and partly through the general disposition of employers to do the right thing when it is called to their attention the evil is checked. In this special instance many stores now rely for seasonal emergency help on lists of former employees, now married but willing to help out for a few

days in the store, and on the available reserves of the cooperative classes.

A typical four-hour commercial course culminating in cooperative work covers four years of English, two years of foreign language, two of mathematics, one of history, two of civics and four years of technical commercial subjects, including bookkeeping, penmanship, applied art, stenography, typewriting, business practice, salesmanship, and commercial advertising. The detail on retail study includes a brief history of stores; selling as a profession and its growing importance; store system; detail of selling methods and handling customers; store organization in advertising, management and merchandising; detailed study of merchandise, demonstration sales, special merchandise reports and outside reading.

*Supervised projects in agriculture.*⁴ In many respects the work in day schools of vocational agriculture is so similar to that of cooperative courses in industry and in commerce that a brief description is necessary even though the pupils have not yet left school to go to work. The all-day vocational schools are organized either as separate schools or as departments in high schools. All of these schools emphasize the art of agriculture as well as the science. Located as they are in rural districts, with their pupils living on farms, they are in close contact with actual working conditions.

Some of the special or separate schools have extensive equipment in the way of buildings, farm lands, animals, machinery, etc. Such are the county schools of Wisconsin and Massachusetts, the district schools of Georgia and the state schools of New York and Minnesota.

Departments of vocational agriculture in high schools are the more common type. These usually have only one or two teachers of agriculture and of home economics. As part of the full four-year high school course instruction is given in the principles of agriculture and almost

always each pupil carries on a project sometimes at the school but more often on the home farm. Other schools have what they call short-unit courses. Here the pupils who are taking the regular high school course, take a minimum of ninety minutes a week in some short course in technical agriculture and carry on not less than six months' directed or supervised practice in agriculture. This practice consists of carrying through a complete enterprise in animal or plant husbandry or in home care. Typical projects are raising a crop of corn, cotton, etc.; raising and marketing a litter of swine; cultivating, canning, and perhaps marketing a crop of berries. Teachers are usually employed on a twelve-month basis in order that they may provide supervision during the entire period of the project. Careful records are maintained by each pupil and these records and the experience of the pupils form the basis for much of the class work. The financial returns from this supervised farm practice now equal the amount of money, federal, state and local, which is expended for salaries of teachers of vocational agriculture. For the year 1921-22 the labor income for supervised farm practice in all-day white schools on the part of vocational pupils amounted to almost \$3,000,000. In 1924 more than 60,000 boys were enrolled and 2,400 girls. It is impossible to state how many other girls enrolled as home economics students should be added to this number. There is a close relation between school instruction and subsequent employment, since from 60 to 75 per cent of the students given vocational agricultural instruction are now in agricultural work.⁵

A typical four-year course includes four years of English, two of mathematics, two of science, two of history, one of civics and four years of agriculture.

The supervised experience in farm work is carried down to the younger pupils under the name of junior project work. Under the name of agricultural clubs and contests

this originated in the South about 1910. These clubs were promoted and encouraged largely by the United States Department of Agriculture under the supervision of county agents. Many of these junior projects equal in magnitude the senior projects conducted by the high school student.

The scope of these activities extends upward to the adults as well as down to the younger boys and girls. There is constant cooperation between the state agricultural colleges, teachers in the vocational high schools, county agents and local farm bureaus. The New York State report for 1923 mentions 57 community meetings addressed, with a total attendance of 5,050; 150 farmers' meetings held at the schools with a total of 4,792 persons; 29 demonstrations on the school farm and 60 demonstrations on the farms of the region. The relative emphasis on various types of instruction, as between adults and boys and girls, is shown by this summary.⁶

WORK OF SUBJECT MATTER SPECIALISTS

Agronomy

	<i>Adults</i>	<i>Boys and Girls</i>
Demonstrations		
Corn projects	13,153	17,293
Beef production	1,673	4,455
Poultry	65,359	50,048
Dairy work	21,107	10,473
Farm management	16,164	6,018
Clothing and millinery		
Selection of material	8,683	10,967
Sewing and garment making	46,177	67,294
Remodeling old garments	7,428	4,483
Hat making	21,238	6,847

WORK OF COUNTY EXTENSION AGENCIES

<i>Clubs organized</i>	<i>Adults</i>	<i>Boys and Girls</i>
Membership	1,034,032	459,074
Clubs		32,673
Completed demonstrations	721,448	428,746
By 2310 county agents	282,395	128,705
By 949 home demonstration agents	438,099	254,006
Percent completing extension work.....		50%
Percent finishing projects		50%

Much of this work may not be considered as education because it does not imply continuous study. Interpreted from one point of view this work is strictly vocational. It deals with concrete subjects—raising hogs, making hats, improving home sanitation. Interpreted from another point of view it means success in training men and women, boys and girls, to living richer lives. The ton-litter of hogs means material prosperity with resultant better standard of living; the hat making means art and the appreciation of art applied to daily life; the home sanitation means health, vigor, and physical beauty.

In the number of persons, adult and juvenile, reached each year, the rural extension work compares favorably with that of the city evening school. The periods of instruction may not be as long, but the results, when measured by the extent to which the instruction is made to function promptly in the lives of the pupils, merit extreme commendation.

An interesting expansion is going on at present in the boys' and girls' club work.⁷ Many states have now organized associations for junior farmers and home-makers, taking into consideration in the work suggested those things that appeal especially to young people in the later adolescent stage. As a result, the ages of the members who have enrolled in these associations have ranged from 16 to 25 years. Judging from the success of these organizations so far, it appears that a forward and important step has been taken in bridging the gap between the junior and adult extension work. Scott County, Iowa, formerly enrolled a majority of children under 14, while none were over 18. A recent survey shows that of 215 club members 86 were 16 years or over and 80, or 37%, were out of school.

The prime purpose of these organizations is just what their name implies, club work, rather than education. Because of the large membership, however, and the fact

that they are going institutions, these clubs may easily become vehicles for expanded post-school educational opportunities along cultural lines. A summary of leaders' activities in 33 northern and western states in 1921 showed:

Members attending short courses or round-ups at State agricultural colleges	3,346
Scholarships awarded for courses in agricultural colleges	590
Former club members receiving instruction at agricultural colleges	1,809

The present success and the probable future expansion of the three types of cooperative work, industrial, commercial and agricultural, which have been described, make them important factors in plans for post-school education. They may be expected to contribute a well-selected group of partly-trained young workers who will need guidance and further instruction as they become full-time workers.

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4. Federal Board *Bulletin 13*, Revision of 1925.
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CHAPTER XVIII

APPRENTICE SCHOOLS

Is apprenticeship declining? Any attempt to prove that the ratio of apprentices to skilled workmen is increasing or decreasing is made difficult by the fact that the definition of the term "apprentice" has changed. Sixty years ago most of those listed as apprentices were young people engaged to a period of from three to five years of fairly definite training for a skilled trade. But in later years, the engagement was less formal and undoubtedly many more helpers and casual young workers are listed in the census returns as apprentices. Granting, however, this factor of error, the evidence is nevertheless convincing that during the past fifteen years there has been an important change in relative numbers of apprentices and skilled workers.

The only group on which comparative figures over a period of years are obtainable is that listed for total workers, as manufacturing and mining up to the 1900 census, and as manufacturing and mechanical in 1910 and 1920. The apprentice group is listed as those in building and hand trades, and "other apprentices."

Douglas traced these groups¹ from 1860 to 1910 and found the ratio of apprentices to all workers in the group to be respectively for each decade 1 to 33, 87, 62, 88, 98. That is, there was a steady and large increasing failure to train young workers to fill the gaps left by the death or withdrawal of older workers.

The development of vocational education in the public schools since 1905 and the increasing efforts of employers to train apprentices raise the interesting question as to whether these efforts now show any measurable results.

The 1920 census figures ² comparable to those used by Douglas show 139,851 apprentices to 12,818,524 total workers in the manufacturing and mechanical industries, a ratio of 1 to 92 as against the ratio of 1 to 98 of the previous decade. This is not far from the ratio of 87 and 88 in 1880 and 1900 and would seem to indicate that the tide is turning.

Kelly made a tabulation of conditions in the same group of workers in a random selection of cities of more than 100,000 population, based on the 1910 census.³ The Douglas ratio as derived from the Kelly tabulation is 1 to 91, much larger than the national ratio of 1 to 98. This supports the inference that because the vocational schools and the efforts of employers were more active in the larger cities than in the nation as a whole, as early as 1910, measurable improvement was made.

For purposes of comparison, the writer has compiled conditions in Kelly's list of cities from the 1920 census. The Kelly totals for 1910 and the detail for 1920 are shown in Table VII in the Appendix.

The decrease in total number of females employed in manufacturing and mechanical industries is surprising after the experience the country went through during the war in expanding the use of women in these industries. Most of the cities tabulated show an increase, but decreases of approximately 2,000 in Cincinnati, 3,800 in New York, 25,000 in Manhattan, 9,000 in Philadelphia, 3,000 in Pittsburg, account for the decreased total.

The most interesting deduction from this table is, however, found in the comparative ratios of apprentices to total workers.

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RATIOS—APPRENTICES TO TOTAL WORKERS
MANUFACTURING AND MECHANICAL INDUSTRIES, 1920

	1910	1920
Apprentices, Building and Hand Trades, Male, to Total Workers, Male	1 to 293	1 to 141
Total Apprentices, Male, to Total Workers, Male	1 to 75	1 to 70
Total Apprentices, Female, to Total Workers, Female	1 to 395	1 to 230
Total, All Apprentices to Total, All Workers.....	1 to 91	1 to 80

These ratios show encouraging gains during the decade. The condition in the building and hand trades was bettered by half; there were decided gains both for total male apprentices and for total female apprentices; and the final ratio, 1 to 80, which we have called the Douglas ratio is in these cities, better than the most favorable nation-wide ratio in any decade since 1860, except that for 1890.

The building and hand trade ratio, in spite of the encouraging improvement made between 1910 and 1920, is nevertheless alarmingly high and fully justifies the strenuous efforts which have been made between 1920 and 1925 by the Federal and State Boards for Vocational Education, The American Construction Council, The Apprenticeship Service Department of the Plumbing and Heating Industries, and other organizations. Total figures for the period since 1920 are not available, but since the educational efforts between 1910 and 1920 produced such decided improvement, undoubtedly the greater efforts since 1920 have further greatly improved the situation.

In spite, however, of figures like the foregoing which indicate that the ratio of apprentices to journeymen did not decline from 1910 to 1920, figures on particular trades give the opposite interpretation.⁴ Thus while the number of carpenters increased about 9%, the number of carpenter apprentices decreased 20%; journeymen plasterers decreased about 4%, and apprentice plasterers decreased

more than 40%; the number of printers increased more than 7%, while their apprentices decreased almost 7%. Any deduction from these figures is made doubtful because of disputes as to the accuracy of the figures. Thus the 1920 census showed 206,000 plumbers, while reports of the apprentice service department of the plumbing and heating industry state "In 1910 competent figures show 128,000 journeymen plumbers in this country. In 1920 this figure had been reduced to 110,000, and the labor survey of the first of this year (1923) showed that there were probably not more than 103,000 journeymen in employment in this country." ⁵

Be that as it may the fact remains that during the past five years employers' associations and labor unions in the skilled industries and particularly in the building trades have been convinced that there is a great lack of apprentices and have been very active in trying to remedy the situation. A survey in New York State, conducted by the State Department of Education in 1922, showed almost unanimous agreement on the part of both employers and unions that something should be done to promote organized apprentice training. Replies were received from 330 employers having 57,007 skilled workers and 2,281 apprentices on their payrolls, and from 38 unions having a membership of over 25,000, and 2,062 registered apprentices. A large majority of the employers (276) said it was difficult to secure skilled workers, and 318 said that industry should provide better training for the workers; 295 employers felt that a modern apprentice law would encourage apprentice training, and 189 were willing to establish new apprentice-training programs if such a law were enacted. Thirty-two of the unions favored the enactment of a modern apprentice law. A year later, October, 1924, a conference of representatives of unions, employers and school officials met at Utica and drafted a plan for expanding apprentice training.

The new apprenticeship. This plan provides from four to eight hours each week of instruction in evening schools or day part-time schools in technical subjects related to the trade or craft. In each community there should be a committee or commission for the building trade, composed of employers, building trades organizations and public school representatives. These committees and their sub-committees should organize local cooperation and arrange for the use of schools, proper courses of study, instruction material and equipment and competent instructors. Mixed classes, composed of apprentices and journeymen, are discouraged. Classes should be limited to 15 in shop-work and not more than 25 in related subjects. The classes should meet not less than 25 nights per year and for not less than two hours per night. Funds for special state aid would be available. Instructors, skilled at the trade, with not less than five years of journeyman experience, and a satisfactory general education, would be licensed by school authorities to teach.

Cooperative plans for utilizing part-time school instruction for the supplemental training of indentured apprentices are not new.⁶ The State Trade School at Bridgeport, Connecticut, in 1917, and the similar school at New Britain in 1913, had such classes, although in some of them the attendance was optional. The Lane Technical School of Chicago arranged for such instruction for baker apprentices, at the request of the union, in 1914, and similarly for plumbers in 1913. The first continuation school in Cincinnati was of this type, and was started in 1909. During the last five years, however, the number of these schools has greatly increased.

Wisconsin, since 1911, has had a state law, providing for the indenture of apprentices under the state industrial commission and the compulsory attendance of apprentices in special classes in continuation schools. There

were 1,556 such apprentices in 1922. The more common usage is to organize the movement under a commission like that which met at Utica. The New York Building Congress and the Boston Commission on Apprenticeship are of this type. Employers associations seem to prefer this arrangement to the less flexible one of state law. The Federal Board for Vocational Education and the Bureaus of Vocational Education of the various states have been very helpful in launching such programs in local communities, as well as in contributing the powerful factor of federal or state financial aid.

Various trade organizations have been active in a degree ranging from the setting up of instruction material to the laying out of a complete apprentice-training program. Thus the associated tile manufacturers have issued a complete set of lesson plans covering all phases of the tile-setting industry. The National Trade Extension Bureau of the plumbing and heating industry, through their Apprentice Service Department, get out guidance material for prospective apprentices, carry on an extensive publicity work through educational and trade papers, cooperate with public school officials or with endowed schools, for instance, Dunwoody Institute, prepare or stimulate the preparation of the most detailed instruction material and keep a careful statistical record of all apprentice training in their field. They have detailed records for 1923-24 on the operation of 78 schools, record of 7,047 apprentice plumbers in school, 1,380 journeymen plumbers, 577 steamfitter helpers and 117 steamfitter journeymen, a total of 6,121 students. This remarkable record of cooperative activity and success is due to good business management, a willingness to spend money and the use of experts in vocational education in building up their program. Their program involves five activities: Building public understanding of apprenticeship needs and ways of meeting these needs; providing instruction

material; providing competent instructors; training those instructors; and making surveys and investigations.

The keynote of this whole scheme of the new apprenticeship is cooperation. Against the picture in Chapter IV of a hundred years of struggle over apprentice relations between employers and labor unions set the picture of a meeting of the advisory council of one of these cooperating groups, where representatives of employers and of unions contribute their expert knowledge for the better training of young workers, and the only challenge is who shall be first in constructive suggestion; while the school man who during all those earlier years stood aloof is now a valued member of the council. The business agent of the union takes over from the school attendance officer the responsibility for seeing that the boys are present and attentive to instruction. Delinquency is swiftly followed by a summons to appear before the advisory council, where a first offense is likely to be penalized by a substantial fine, and a second or third offense by dismissal from apprenticeship. Discipline, however, is a matter of minor importance, for these boys of the type described in Chapter X are a promising group. While the stress of the training is naturally on trade instruction, the spirit of the training is expressed in words which ended a report in a recent senatorial hearing: We want men as well as mechanics.

A serious difficulty in any apprenticeship arrangement is the assurance of steady employment to the boy. This difficulty is especially serious in seasonal industries, such as most of the building trades. This difficulty has been met by the introduction of an entirely new factor in apprentice training. Because of the cooperative nature of the training, if one employer is unable to keep a boy working steadily, arrangements are made to transfer the boy either temporarily or permanently to another employer. Another difficulty is the inevitable fatigue attached to

evening school attendance. This is being remedied with increasing frequency by having the apprentices receive their school training during working hours. A difficulty which is likely to be met under any state apprenticeship law is encountered in some of the small towns of Wisconsin. One such school reported a total of 9 apprentices in five different trades. Apprentices were being handled by teachers doing regular class work. They received special instruction according to their particular needs "as far as possible." Evidently under such circumstances there is great likelihood that the apprentice will not receive full value for the hours spent in school.

The essential details of the cooperative plan of apprentice training can be shown by citing Niagara Falls, New York.⁷ Here the plan has been worked out through several years of experience. At the present time every apprentice in the building trades in the city, with the exception of the electrical trade, is required to attend night school and Saturday classes as a part of his regular apprentice program.

Apprentices are enrolled with the joint apprenticeship committee, an identification card is issued, and the apprentice is assigned to work.

A probationary period of three months is prescribed for all trades except bricklaying and plastering. In these the period is one month. This period counts on the term of apprenticeship.

The full term of apprenticeship is four years, except for plumbers and steamfitters, in which cases it is five years.

The full term of apprenticeship is divided into eight periods of six months each, and the apprentice receives his advanced rating and classification upon the satisfactory completion of each period.

A periodic examination is given at the close of each six months' period to qualify for advancement.

Any interchange of employment of apprentices is adjusted through the trade committees.

Apprentices are paid for time spent in school at the rate of one-half the regular hourly wage. The time spent in school during the first two years of apprenticeship is not less than eight hours a week during the regular day school session; during the last two years of apprenticeship, not less than four hours a week during the regular evening school session. The eight-hour session is on Saturday from 8.00 A. M. to 5.00 P. M. The evening school attendance is during the regular hours of evening school. Penalties are provided for non-attendance. The minimum age of entrance is 17 years for carpenters and painters and 16 years for the other trades.

Lessons are laid out in detail on the basis of the job analysis lesson sheet which has been previously described. The lessons cover trade processes, science and mathematics, tools and material, safety and accident prevention and miscellaneous trade information.

In other cities, while most of the instruction centers on trade processes and closely related information, a varying amount of general education is provided. Thus in the classes for apprentice plasterers, conducted on Saturday mornings in Philadelphia during 1922-23, the boys were taught the ornamental features of the trade, together with related knowledge of architectural drawing, plan reading, estimating of quantities and costs, English, civics and hygiene. In this instance the employers paid regular wages for the period of school attendance, and practically all the apprentices of the associated employers were enrolled. Since these classes are part of the public school system they are open to all apprentice plasterers, without regard to affiliation, but it is interesting to note that the employers who are not associated are not well represented in the school.

Numbers, equipment and costs. It is impossible to give any accurate estimate of the number of apprentices in the United States receiving this cooperative type of instruction, since the instruction in many cases is identical with that given in trade extension classes which are attended by apprentices on a voluntary basis. In reporting numbers of apprentices school records usually make no distinction between the two groups. Thus a widely quoted magazine article of September 1923 stated that there were only 4,800 carpenter apprentices in the United States when in New York City alone there were approximately 1,400, and the statement that there were only 398 plastering apprentices in the country was contradicted by the fact that at that time there were more than twice that number in New York City alone.⁸ Typical instances of numbers may be cited, as approximately, 300 plumbers' apprentices, 90 sheet metal, 60 plasterers, in Philadelphia; 475 bricklayer, plumber, painter and electrician apprentices in Cleveland; at least 1,500 in various trades in Chicago. Of 5,819 enrolled in evening trade extension classes in Massachusetts in 1923-24, 100 were apprentices enrolled under the Apprenticeship Commission. In 1925 this number had increased to about 200. Since most of these schools are aided from federal funds and are included in the definition of trade extension classes, an approximate idea of the scope of the work is given by total enrollment for 1923 which listed 29,732 males and 8,199 females. It is however impossible to tell how many of these were apprentices and how many were adult workers.

The housing and equipment provided are good, since these classes are rarely started unless such conditions are satisfactory. Exact figures on costs are not available. Relative costs are indicated by the Boston figures⁹ for 1922 where the pupil hour cost in evening trade school classes was 22.5 cents as against 14.8 cents for evening

high schools, 10.1 for evening elementary schools, 25.1 for general continuation schools, 12.8 for day high schools and 9 cents for day elementary schools. These are the costs before special state and federal aid is deducted.

Formal apprenticeship is even yet usually restricted to the traditional skilled trades, but the possibility of extending it to some of the distinctly modern situations is proved by the fact that the Wisconsin state plan provides for school instruction and a two-year apprentice period for bookkeeping and traffic worker, cigar-maker, pharmacist, weaver, welder and core-maker; and for a one and one-half year apprenticeship on such a subdivision of factory operation as warping.

Plant apprenticeship training. Apprentice training in plants developed as described in Chapter VII. Present modifications of the traditional systems can be classified under the following heads:⁴

The shop instruction plan places boys in a regular shop department which is used as a breaking-in place for apprentices; a foreman especially qualified for this work is placed in charge. The instruction is likely to be haphazard, since it depends upon the production which happens to prevail in the department. Only limited attention is given to related subject-matter and there is no attempt to extend general education.

The training-on-the-job plan is very similar, except that usually a director of apprentices routes the boys through various departments. Teaching is done casually by foremen who are not trained instructors and who may be very indifferent in their attitude towards training.

The pre-production plan was formerly called a vestibule school. A section of the plant is set aside for training purposes, instructors are employed and a selection is made of typical operations from all parts of the plant. An essential for success in this plan is the presence of a sufficient number of apprentices to justify the use of the spe-

cial training section. The plan is especially adapted to the short-time training of operatives on subdivided processes, rather than for long-term apprentices. The objective is to place learners on a production basis as rapidly as possible so that the process is training rather than education.

The intermittent training plan is conducted in a manner very like the one just described but the learners are usually indentured for a long term. They alternate periods of instruction of days or weeks in the training section with periods of experience of weeks or months in the various departments. In addition provision is usually made for instruction in related subject-matter either within the plant or in neighboring vocational or technical schools.

The amount of education, as distinguished from trade training, given in these plant schools, varies from zero to a maximum of from four to eight hours per week, and rarely includes anything beyond directly related material. It is obvious that young workers need instruction in three lines.^{3a} The first is a group of subjects in which the State is vitally interested, such as citizenship, thrift, safety, health, economics, history and recreation. The second is a group of related subjects such as drawing, science, mathematics and business English which have a value in general education as well as in trade training. The third is instruction in technical skill or knowledge. The private corporation inevitably draws a line on the expenditure of its funds for instruction in the first and second groups. Any education beyond that prescribed by the plant apprenticeship plan is dependent upon the voluntary effort of the young worker. Relatively few of them have the wish for further education in the subjects of the first group.

Other training in plants. In other fields than those of apprentice training, however, many corporations provide educational opportunities for their employees, and ap-

prentices among others may take advantage of these offerings.^{6a} These opportunities may be roughly classified into three groups. The first is Americanization work, sometimes provided in the plant in cooperation with the public schools and sometimes entirely financed and administered by the corporation. The second is the offering of instruction in such subjects as cooking, sewing, music and physical culture. The third is the presentation of lectures, or combinations of lecture and study courses, which usually tend to focus on matters connected with the management of a particular plant, although they may be of such broad application that they contain a large amount of general education. Thus, the Duquesne Steel Works in 1922 offered instruction in electricity, physics, chemistry, mathematics, mechanical drawing, English for foreigners and elementary instruction for negroes. The Larkin Company of Buffalo had classes in cooking, sewing, arithmetic, English, etiquette, dramatics, typewriting, shorthand, violin and ukulele. In department stores the general education character of the instruction is especially marked. This instruction might be defined as technical in that its chief purpose is to develop better workers. But so much of success in store work depends on personal relations and personal ability rather than on technical information, that much of the influence of the training is towards the cultural. The range of activity in a store like Macy's involves personnel work, guidance, insurance, co-operative saving, summer camps, clubs and a study of merchandise which involves economics and geography on a world-wide basis.

A résumé of this description of present-day apprentice training activities in America shows on the whole an encouraging state of affairs. Proved instruction material and tried methods are operating effectively. It is an open question as to whether we are not training a larger proportion of apprentices than was ever really trained be-

fore. There is no questioning the fact that we are training them better than they were ever trained before. The essential task of apprentice training is to give technical instruction rather than general education. Nevertheless a considerable amount of general education is being given. Two very important items which stand out are that the young workers themselves are interested and happy in their period of training; and that the fine spirit of co-operation on apprentice training now existing between unions, employers and schools is full of promise for the future.

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CHAPTER XIX

EVENING SCHOOLS

IN AMERICA any who wish further education may find it in the public evening school; and those who are found in the evening school are the ones who really desire more education.

Types of classes. The four important departments of evening school instruction are Americanization, elementary grades, vocational classes and high school classes.

Americanization work, including English and citizenship training for the foreign-born, is outside the scope of this report. In general not more than 20% of the pupils are under 21 years of age, and the fact that they are young workers is a minor incident in their schooling, except as a knowledge of English helps them to obtain employment, and the friendly counsel of their teachers helps to guide them in their social and employment relations. On the whole, however, Americanization work is a phase of real adult education rather than of young worker education.

The grade classes of the elementary evening schools are usually composed of from 40% to 50% of persons under 21 years of age. One might expect these classes to enroll a much larger percentage of young people, because so many young workers have left school before completing the eighth grade. The explanation is, that most of the larger cities which maintain evening schools also maintain compulsory day-time continuation schools. The younger boys and girls attend continuation school and

later, if they desire further schooling, enter the evening high school. In other places, where continuation schools may not exist, young people attend no evening school until they have passed the age of sixteen, and then enter vocational classes, where a minimum age of 16 years is the entrance requirement rather than the completion of the eighth grade.

Those young persons who enter the elementary evening school for the purpose of completing the requirements for graduation are frequently able to cover the required ground and to enter high school after a lapse of one year. All of these reasons tend to get the young workers into the evening vocational or high school and to lower the proportion enrolled in elementary schools. On the other hand frequently classes in home economics are housed in elementary schools simply as a matter of convenience, although the instruction given does not differ from that offered in high schools. At other times the fact that an elementary school is equipped with a gymnasium or swimming pool or is conveniently located for a class in choral music may account for the enrollment as elementary pupils of those who differ not at all from pupils enrolled in similar classes in a high school.

Scope of offerings. The scope of evening school enrollment in the United States is therefore to be measured by combined totals rather than by fine distinctions between elementary schools and high schools. The scope and distribution of these schools are shown in Table VIII in the Appendix.

This study of public night school opportunities in urban communities shows the rapid lessening of opportunities as the size of the city diminishes. For the nation as a whole about one-fifth of the places of over 2,500 population report night schools, but the variation is all the way from a practically perfect score for the cities of more than

100,000 population, through seven-tenths for the 30,000 to 100,000 population group, down to a little more than one-twentieth for the small towns of 2,500 to 10,000 population. One can, in imagination, follow this decreasing percentage of after school educational opportunity out into the rural districts where, on a comparative percentage basis, it becomes insignificant.

One would at once suspect that the chief reason for this dearth of opportunity in the small towns is due to increased per capita expense, and this idea is somewhat supported by the fact that the per capita night school expense in places of 2,500 to 10,000 population is greater than in those of 10,000 to 100,000 population. If the places under 10,000 are compared with the three groups of more than 10,000, it appears that, for day schools, the small towns expend per capita 65% of the large town per capita; but for night schools, 94%. Further, the large places expend for night schools 14% of their day school per capita, and the small places expend 20% of theirs. The conclusion is that the failure of the small towns to offer evening school opportunity is somewhat affected by comparative high costs. Other, and probably stronger reasons, are that it is caused by a lack of expressed demand or by a feeling on the part of school officials that although the comparative cost is not prohibitive, the actual cost is an addition to an already heavy local tax burden which is not justified. ~

Another important point revealed by this tabulation is that the evening school teachers in the larger towns are assigned too many pupils. Forty-eight pupils per teacher in the cities of more than 100,000 population, or 42 per teacher in all cities of more than 10,000 population is too many for effective teaching or for permitting that intimate acquaintance between teacher and pupil which results in effective guidance and is much more important than the mere subject matter of class instruction.

The extent of evening school enrollment. The extent of evening school enrollment depends not only on the size of the city and the number of children retained, in day school, but also on the methods used to inform the public about evening school opportunities. The following tabulation shows conditions in the United States for cities of 2,500 population and over.

RELATIVE VARIATION DAY SCHOOL AND NIGHT SCHOOL ENROLLMENT IN CITIES
ACCORDING TO POPULATION. COMPILED FROM TABLES 1, 19, AND 20—
BUREAU OF EDUCATION BULLETIN 1924. NO. 34

1920 Population		Enrollment for 1921-22 Biennium					
Cities of U. S.	Table	Population of included cities	Day School Enrollment	Per cent Total Population in Day School	Night School Enrollment	Per cent Total Population in Night School	Per cent Total Population Day & Night
2500 to 10,000 population..	20	9,929,886	2,334,903	23.5	12,348	0.12	23.62
10,000 to 30,000 population	1	8,262,449	1,655,016	20.0	47,922	0.58	20.58
30,000 to 100,000 population	1	9,271,108	1,691,489	17.1	138,212	1.49	18.59
100,000 or more population	1	27,449,936	4,599,579	16.7	644,348	2.31	19.01
Total, 2500 and over	19	53,057,118	10,280,987	19.3	842,863	1.59	20.89

Note how the percentage of persons in day school decreases and the percentage of those in night schools increases as the population of the cities increases. The larger cities offer more opportunity in evening schools and enroll a greater percentage. Yet the sum total of the percentage in both day and evening school is less than in the smaller cities. In spite of the increased offerings in vocational schools and junior high schools, the large cities do not retain their pupils as well as the small cities. This is not because the boys and girls of the small cities like school better than do those of the larger places. It is because the larger places offer more chance for employment. To the "Teen Age" group the lure of the adventure of employment is stronger than the appeal of the school. After they have tried the adventure for a couple of years, many of them wake up to a realization

that they need more education, and seek it in the evening schools. Then those cities which provide good opportunities for evening school work, and which succeed in informing those who should be interested that such opportunities are available, get the youth back to school.

What percentage of the total population should school officials enroll in evening schools before they are entitled to feel that they have done their part? An inspection of Table X in the Appendix suggests reasonable standards, and at the same time shows wide variations, not only between different cities but also in the same city in a period as short as two years.

Complete figures later than those of 1922 are not available, but personal inspection of enrollment figures for some of the cities indicates at least twenty per cent further increase for Boston, Philadelphia, Buffalo and Chicago. Cleveland because of financial pressure, has instituted a tuition fee which makes evening schools almost self-sustaining, but the enrollment for 1924-25 was only approximately 5000 and more than twenty Smith-Hughes classes were discontinued during that year. It is unwise to attempt to prove too much from such a tabulation as that given because many factors affect the situation. For instance, in Cleveland while the evening school enrollment diminished, the Y. M. C. A. conducted classes which were more than 90% self-sustained through collected fees, and enrolled about 3000. The effect of the tuition fees is thus made doubtful. In Buffalo, largely due to the local habit of attending public evening schools, the Y. M. C. A. can get not more than one-tenth of the Cleveland Y. M. C. A. enrollment. Omaha will probably double its evening school enrollment in the next two years, if the splendid equipment of the new technical high school is made available for evening work. So too much stress should not be placed on the national increase from 1.1% to 1.59%. The ebb and flow of enrollment in single cities

may be either greater or less. The fact that in middle western cities like Omaha and Des Moines, partly because of the raising of the compulsory school age, more than 90% of elementary school graduates now enter day high school, accounts in large measure for their relatively small evening school enrollment. This is paralleled in Boston by a constantly increasing proportion of day high school pupils, and is contradicted in Boston by a steadily growing evening school enrollment.

It is, however, a fair inference based partly on the tabulation and partly on the expressed opinion of school officials in charge of evening school work that those cities which have a percentage enrollment in evening schools markedly higher than that of the national average attain it by consistent efforts over a series of years to inform their public about evening school opportunities so as to develop a community habit of attending the evening schools. The result is not a forced growth which withers as soon as strenuous efforts relax. It comes as a result of persistent activity steadily exerted by school officials definitely assigned to the particular problem of the evening school and not overburdened by other responsibilities.

Most school officials state with pride that they are ready to provide any study in evening schools for which a group of fifteen or twenty persons make requests. Then they sit back and wait for the demand to be expressed. The fact is that large numbers of people who could and would profit by evening school instruction do not know what they want or how to get it. They are inarticulate. They read the annual announcements of evening school offering, but the information does not register. Therefore, in most communities the enrollment from year to year tends to stay close to the national average. Those communities which enroll the larger percentages carry on a continuous campaign of publicity which little by lit-

tle registers with an increasing number of prospects. Instead of advertising a bargain sale of educational wares once a year, they instill the idea that they are established in the business of furnishing educational service. Their sustained success at least suggests that in most communities there is a greater potential demand for more educational opportunities than is now being recognized.

Paul Douglas traced the growth of evening school enrollment in cities of over 8000 population from 135,654 in 1887 to 678,393 in 1914-15. Numbers diminished during the war, but by 1919 the enrollment was, as shown in the previous tabulation, 586,848, and in 1921-22 it was 842,863. This increase of more than 500% in about 40 years marks a notable chapter in the development of our education program, but the experience of the outstanding cities which has been cited indicates that even greater expansion is possible.

The school in action. The evening school flourishes during the winter. The aftermath of summer recreation lingers through September and the call of Spring begins in April, but from October 1st to April 1st young people are willing to attend evening school.

Those in charge plan their campaign in advance. Elementary school buildings conveniently located are selected; practically all the high schools are set aside for use as general or commercial schools; those schools which have shop equipment for industrial or home economics work are labeled vocational schools. The zero hour is set usually for the last week in September or the first week in October and is preceded by a barrage of about two weeks' duration of intensive advertising. Trolley-car placards announce the date of the opening of the evening school. Advertisements appear in the newspapers and the news columns contain "human interest" stories of the work of the various schools. The cooperation of the foreign language papers is sought and invariably granted.

Placards printed in a dozen different languages appear in store windows. The moving pictures include in the news of the day announcements of evening school opportunities. Pamphlets well printed and attractively illustrated, usually the product of the public school printing classes, give detailed information. The children of the grade schools take home leaflets informing older brothers or sisters and parents that further educational opportunities await them. A stir of interest runs through the community. One in ten of the five million 14-21-year-old young workers in the United States decides to enroll in evening school.

On the appointed evening they appear by tens, by hundreds or by thousands, according to the size of the community. As they enter the building they receive cards containing lists of the courses offered and information as to the requirements of attendance. As a deterrent to casual enrollment they are usually asked to make a deposit of one, two or five dollars. This will be returned to them at the end of the term if attendance has been satisfactory. This usually implies attendance for at least two-thirds of the sessions. In an elementary school they are quickly assigned to classes on the basis of previous school grade completed. In the high school they make selection of studies from a list of courses in the field in which they are interested. Those seeking general education either to qualify for an evening school diploma or to pursue some study in which they are interested make a choice from such studies as English, modern languages, the entire range of high school mathematics and science, history, economics, or other general studies. Those interested in commercial work select from a dozen courses ranging from commercial arithmetic or elementary book-keeping to advanced stenography, typing and accountancy. Those interested in home-making select from as wide a range and as many different courses in that field.

General industrial shop work is offered in equal variety. Those who wish something very special may get it in such courses as art-history, elocution, advertising and sales, or orchestra practice. In the vocational schools the industrial, home-making or commercial courses offer a selection from a short list of academic subjects like history, economics, English, arithmetic and hygiene and, according to the size of the community, either a limited range of woodworking and metal working, sewing and cooking, bookkeeping and typing, or a choice among more than a hundred offerings in industrial courses, fifty in home economics and from twelve to twenty in technical commercial work.

The long lines of pupils move quickly past the desks at which are seated the teachers. Those pupils who know exactly what they want pause for only a moment and are told to return the next night or the next week for the first regular sessions of the classes. Others have some questions which can be satisfactorily answered in a moment. Those who are doubtful are assigned to rooms where teachers may give them counsel at greater length. At best, however, those in doubt must make quick decisions, which frequently result in assignment to classes for which the pupil is not prepared or in which he is not interested. This lack of guidance is unavoidable during the period of registration. During the first weeks of the evening school course teachers make every effort to readjust improper assignments. If pupils will ask for information it is readily given. Unfortunately, however, large numbers of pupils do not realize this and simply stop attending school. The swift movement of those files of pupils before the enrolling desk indicates a high degree of efficiency in the clerical work of registering the pupils, but it also indicates a very serious weakness which is widespread in evening-school work, namely, the lack of adequate guidance for new pupils.

After the rush of registration comes the first session of the classes. One notes the friendly relation between teachers and pupils. Problems of discipline rarely appear in the evening school. These young people are here of their own volition. They are purposeful and attentive. Personal relations in the classroom are very pleasant. Two matters of physical well-being, however, are frequently in evidence. The first is bad light. New buildings constructed since the evening school became an accepted institution are usually well-lighted, but old buildings very frequently have lighting equipment which is a menace to the eyesight of the pupil. The second item is the matter of girls wearing heavy winter coats during the evening session. A few schools have sufficient lockers for the evening-school pupils, but most of them have only cloak-rooms. Some girls are unwilling to trust their precious winter furs to the doubtful protection of a cloak-room; others persist in wearing coats and hats because that seems to be the easiest way to care for them. One might think that such a matter could be easily handled by the teacher, but the fact remains that many of the girls are curiously determined in this matter and insist on wearing their coats.

In the matter of getting response from pupils one notes two kinds of teacher personality. Some teachers are in evening-school work chiefly for the purpose of eking out an inadequate day-school salary. The three, four or five dollars per evening obtained by teaching constitute the chief interest of those teachers. Fortunately they form only a minority of the evening-school teachers. Their classes tend to dwindle rapidly and so these teachers eliminate themselves. The other type, and fortunately the larger number, are teachers who love their work. They claim that on the whole they get a better response from evening-school pupils than from those in day school. They not only teach their subjects

well but their personal influence with the pupils is an important factor.

Similarly, as regards teaching methods, teachers fall into two classes. The first type presents conventional day-school material with little or no adaptation to the teaching conditions of the evening school. They rely too much on the text-book and fail to realize that evening-school pupils have lost the recitation habit. Such a teacher already fatigued by an all-day session in the day school makes a dreary presentation to evening-school pupils. Unfortunately, a considerable amount of evening school instruction is in the hands of teachers of this type. The other type of teacher realizes that special adaptation is needed in material and in method. Groups of such teachers in many of the cities have cut down, adapted and arranged the teaching material of the day high school so that it is well suited for evening school instruction. They tend to avoid the formal recitation method and to carry on their class work largely by the discussion method.

Training courses for the special preparation of evening-school teachers in general subjects are practically unknown. Directors of evening schools in some of the cities are now working on this matter. One is working on a plan to start with a group of twelve or fifteen experienced teachers who shall perform no day-school work. They will render the equivalent of full-time service by planning courses for the entire evening-school system, making personal visits in the way of guidance to pupils, and act as a nucleus to set standards for all the evening-school teaching. Another director has arranged with a local teacher-training institution to give courses for evening-school teachers. The salary schedule is so arranged that teachers getting credit for these courses will be on a higher rating. Either of these methods offers a remedy for the weaknesses just mentioned.

Frequently good teachers in the day-school service are unwilling to take on the extra burden of evening-school work. They feel that they cannot do justice to both groups of pupils and they prefer to concentrate their efforts on good work in the day school. For this reason and also because there is some advantage in evening-school work in having a limited number of instructors who are in direct contact with working conditions, a number of teachers are taken from outside the school system. Sometimes they form half of the evening-school instructors. Although they are likely to lack teaching experience they often develop teaching ability. Their touch with outside affairs makes them very acceptable to the evening-school pupils when they combine with this advantage personality and the ability to impart their special knowledge.

One who visits an evening-school class in mathematics or science will find conditions very little different from those in similar classes in day schools. On the whole day-school methods work out very satisfactorily; the pupils apply themselves diligently and the work goes on well.

As one steps into a classroom devoted to commercial work he usually gets the impression that matters are moving with precision and vigor. Everyone is busy, the instructors appear to be competent and the pupils are getting what they want. Closer inspection usually shows that the courses are limited to the long, conventional offerings in stenography, typewriting and bookkeeping. Some cities, however, for instance, Philadelphia, offer a variety of short courses in filing, entry work, etc., which have a close relation to the jobs actually held by young commercial workers. In small towns commercial work may be the only vocational subject offered or one of very few such courses. In consequence the commercial work enrolls a considerable number of young people who take it because they cannot get anything else which appeals

to them. English of second-year high school grade is generally accepted as the minimum requirement for satisfactory commercial work in typing or stenography. Nevertheless, many evening schools in the small towns permit pupils to take these commercial subjects without adequate preparation in English. Of course such pupils later arouse the ire of employers. In the better schools adequate English preparation is required.

The home economics class is always one of the most interesting in the evening school. In this class or that class we find an office-girl bending over a handful of straw, wire and ribbon which soon will be blended and become a most attractive hat. Here is a young mother at a sewing-machine, stitching a pair of rompers for the three-year-old she left at home. Here a factory-girl is putting the finishing touches on a party gown which would have cost her two weeks' wages if purchased in a store. And here a girl who helps her mother keep house during the day is gathering the soft folds of delicate crêpe to form a lamp-shade which will be a Christmas present for her mother. The girls are willing enough to talk to a visitor. One admits that often she is so tired after a day's work that it takes a decided effort to get to evening school, but she is always glad after she has come because she gets a social relaxation here which has value for her. Another one mentions the economy practised as well as the skill acquired in making articles for personal use. Others speak of pride in dainty craftsmanship, of love of beautiful fabrics, and of the value of release from home care for a few hours during each week. This work is called vocational, but one cannot escape the conviction that in its social, civic, and cultural aspects a worthy work is being done.

From time to time one has noticed the sound of hammering and the rumble of machinery. When these sounds are followed to their source one enters the shops. The

work may be of a standard deserving to be called vocational, but in the general school it is very likely to be of a general education nature, a sort of evening-school substitute for the manual training of the high school. Many amateurs will be found in classes in woodwork, radio, elementary electricity or auto-mechanics. They will transfer the knowledge gained in school to some home avocation. The real vocational industrial work will be seen later in the vocational school.

Further investigation is likely to discover a class in almost any subject, such as real estate practice or commercial law. Some classes have a strong recreational feature. Gymnasium work, swimming, choral music and orchestra practice are of this type. On occasion the school auditorium is filled with pupils who listen to an address sometimes worth while and sometimes not so worth while from some speaker who has been called in for the occasion. In many schools a scheme of student government or of student control of activities is very effective in building up school spirit. Some enthusiasts issue a school paper worthy to rank with the best of such publications; others form committees and organize school socials or dances which have an appeal for many of the students.

Always there is the graduating class. No college senior ever wore his cap and gown during the weeks preceding commencement with any more assurance than these evening high school students display as they file into the auditorium in response to frequent summons for the graduating class. And why not? For four or five years they have been faithful in attendance, often at considerable sacrifice. They have achieved the twenty-four points, more or less, required for graduation. The evening-school diploma has a deserved value in their eyes. This diploma will have even greater value as a movement developing during the last two or three years shows greater expan-

sion. This is the very interesting present tendency to place the general evening high school on a par with the day high school as regards credit for work done. Cincinnati, Chicago, Boston, Philadelphia and other cities are increasing the scope of their general evening-school work so as to make the evening high school diploma equivalent to that of the day high school. A typical plan requires thirty-six credit points for graduation. Of these, nine must be in English; six in the same foreign language or in phonography and typewriting; three in history or government; three in mathematics or bookkeeping; three in science; and twelve points in other authorized subjects. This expansion may lengthen the usual evening course from four years to five, or it may increase the number of evening sessions per week from three to four or five, or it may increase the length of sessions from two hours to three hours per evening.

This expansion of the general evening high school is one of the most significant movements in young workers' education now going on in this country. It does not imply any decrease of stress on the vocational and utilitarian subjects, but it seems to indicate not only an increasing demand for general and cultural subjects but also that in the general evening high schools there is a very effective going concern capable of meeting that demand. Is there any good reason why our evening schools should not expand still further and become really people's colleges? It requires no great stretch of imagination to see this developing of evening schools now heading up to an equality with the day high school, going still further and presenting subjects in the field of history, economics, sociology, or for that matter in any field, of a standard comparable with college courses, yet modified to meet the interests and capacity of a great mass of people who have always thought that college education was a dream beyond their accomplishment.

But let us return to the evening schools as they are. In the big towns we go to another building; in the small towns we go to another corridor; and find the vocational classes at work. They may be in the splendidly equipped shops of a modern trade-school or they may be housed in an old school building once abandoned or in some shabby temporary quarters. Here the pupils are men and boys in overalls. There is a reek of hot lubricating oil and fumes from storage batteries or a furnace devoted to the heat treatment of steel. These pupils are not particularly interested in graduation. They want something definite, and they want it right away. Some may take a ten-week unit course, and having obtained the specific instruction they desired they may drop out. Or they may take another unit course, and after that another.

A very brief conversation with the teachers shows that these men have been trained for their work. They produce job analyses of the kind described in a previous chapter, and point out pupils working from blue-printed lesson-sheets smeared with the marks of many grimy thumbs. The bell rings for the close of the session and the students shut down their machines or put away their material. Most of them are in no hurry to leave. They "wash up," meanwhile carrying on a discussion with the instructor. Finally they are dressed in street clothes, but still they linger. Perhaps a half hour later they drift away with the instructor still in the midst of one small group. They may be discussing baseball or the tempering of a cutting tool. The instructor seems to be equally informed on either topic.

We sit down in the small office and ask the director how he did it. He says that he "sold" the idea by advertising in newspapers, by speaking before labor organizations and employers' associations, by placing posters in industrial establishments, and by man-to-man talks in the plants.

He explained the idea of vocational evening school work until it registered with those who needed it. Some of the classes are on a trade extension basis, that is, they are composed of apprentices, helpers or journeymen who desire instruction in a field in which they are already employed. Such classes for persons over 16 years of age can receive special aid from federal, and usually from state funds. Practically all the instructors are skilled tradesmen who have gone through intensive training courses to make them also skilled teachers.

Other courses are trade preparatory. Their membership may consists of young fellows who are not yet definitely launched in the trade which they think they wish to follow, or they may be older men who wish to change to another line of work. Whatever the type of class these facts stand out:— The classes are filled because definite efforts were made to find out what local people needed and wanted; because instruction material was developed by a process of scientific analysis; teachers were trained to a high degree of competency for special work; additional money was supplied from special state and federal funds; competent directors devoting full time to this work were obtained; and there is no cessation of effort to keep the public informed about these opportunities.

The janitor peers in through the office door and hints that it is time to lock the building. We step out on the sidewalk while the director explains that the vocational subjects are the ones in which young people are interested; that is why these vocational classes have had such remarkable growth in the past twenty-five years. But one wonders, thinking of the evidence of increasing interest in general evening-school education, whether methods similar to those used in the vocational schools would not discover a dormant demand for general and cultural education and bring such increase in numbers to our general evening schools that the nation-wide propor-

tion of 1.59% of our population in evening schools could be multiplied by three or four. Cincinnati, Detroit, Los Angeles, Milwaukee, Portland (Oregon), and Buffalo have done it. It certainly seems within the bounds of possibility for other cities to do as much.

Advantages and handicaps. The strength of the evening school rests on the facts that the pupils are there on a voluntary basis and the curriculum is sufficiently elastic to respond quickly to any expressed demand. Young workers are in that period of life when the spirit of independence is most marked. Any touch of compulsion tends to arouse their opposition. The compulsory feature is not a serious handicap in cooperative classes and apprentice training because it is overshadowed by the fact that the pupils are carefully selected and are keenly interested in the one case in the opportunity for employment experience and in the other case in the opportunity for training in which they see an immediate value. In the continuation schools, however, the compulsory feature is a very serious handicap. The evening school gets all the advantage and none of the disadvantage of either situation. Its pupils are present because they wish to be present. The very fact that they can terminate their membership at any moment diminishes their desire to do so. The other advantage of the evening school, namely, its elasticity, makes it an especially efficient agency for expansion of further educational opportunities.

On the other hand the evening school suffers from specific handicaps. Overcrowded classes, tired teachers, pupils subject to accumulating fatigue through stress of employment and of winter weather, seriously diminish the educational returns on the expenditure of time, energy and money. The frequent failure to modify instruction material and instruction methods to meet the needs and interest of the pupils is a further handicap, inexcusable

because it can easily be remedied. The general lack of home study on the part of pupils is another handicap. Some of this lack is unavoidable because the time and energy of the pupils are limited. Usually attempts to obtain home study stop with the assignment of a small amount of work on the last session of the week to be done over the week-end. The writer has found only one system, that of Boston, in which home lessons are a definite requirement for evening-school credits; here in most of the general courses a printed sheet is issued containing assignments for each week-end. The general practice in most systems, however, is either to make no assignment at all or to give assignments which are not rigorously required. Finally, the lack of guidance in the initial assignment of pupils is a serious cause of mortality.

Rural evening school. One of the latest developments in evening-school work is the agricultural evening school. In the last five years these have developed to a present enrollment of about 15,000. The work is essentially for adult men, and it is essentially vocational.¹ This work is chiefly in the hands of the teachers of vocational agriculture in the rural high schools. The usual procedure is to make a scientific survey of a rural community, to determine the needs and desires of the pupils. Personal visits are made to the farm for the purpose of enlisting the interest of prospective pupils. Prominent citizens, for instance, the local banker, lend their personal influence. Community meetings are held, Farm Bureau or Grange cooperation is enlisted, and eventually, if the project seems worth while, evening classes are started. The possibilities of growth are illustrated by the experience in Albert Lea, Minn. In the course of two years the work grew to twelve centers organized with an attendance of 258 farmers. Wood County, Wis., starting with six centers in 1918, increased in five years to sixteen centers,

enrolling from a total of 345 homes. Similiar instances could be cited from North Carolina, New Jersey, Ohio and other States.

Up to the present instruction has been devoted to strictly technical courses, such as care of gas engines, dairy husbandry, etc., presented in short-unit courses extending for a few weeks. Sometimes a direct appeal is made to the young worker group, as when the Wood County posters stated "the group between the ages of 14 and 20 years should make a special effort to come." In general, however, the needs of the younger workers will be cared for in rural part-time schools during the day. The whole movement is significant because it marks an entirely new development, the extension of the evening-school plan to rural communities. The methods are very like those already tried out in city vocational evening schools, namely, preliminary survey, job analysis, lesson-sheet, specially trained instructors and persistent publicity. So long as these schools develop only through the activity of the vocational high school teacher and the aid of federal and state vocational funds their offerings will be restricted to the vocational field. There seems to be no insurmountable obstacle, however, in developing parallel with this movement, through the other teachers of the rural high schools, offerings in general and liberal study, with strong social features and special emphasis on such fields as general reading, literature and economics. Such a plan would seem especially well adapted to the consolidated rural high school which so frequently enrolls the pupils in a village or small town as well as those from the surrounding farms.

The evening school of to-morrow. In concluding this presentation of the work of the American evening school one fact remains for emphasis. It is not evidence but is an impression gathered from contact with many school men. They feel that the next few years will see a great

increase in the efficiency of evening school work and in the expansion of offerings. Superintendents of schools and directors of evening schools are translating the idea that education should be a continuing process into a specific readiness to use the evening school as the vehicle for further progress. Many of them are checked by actual lack of funds or by a feeling on the part of their school boards that there are legal restrictions or justifiable objections to the use of public moneys for the further education of people more than 21 years of age. On the other hand many of them state that they have the facilities for expansion and are ready to make expansion along lines that seem worth while. Because of the tremendous growth of evening-school enrollment it would seem that with decreasing hours of labor and consequent increased time for leisure avocation, combined with widespread national prosperity, there is an awakening demand for more evening-school instruction. No experimenting is involved in expanding the offerings in vocational education. In the field of general and cultural subjects some experimenting is needed. This attitude of readiness on the part of school officials has convinced the writer that the mere suggestion that the time is ripe for further experiment will result in increased expansion of evening-school opportunity along the lines mentioned. In this movement it may be expected that young workers will continue to be chiefly interested in subjects in the vocational and utilitarian fields; but it also may be expected that many of them will respond to the idea of education continuing beyond the point of establishment in vocation, and as adults will return to the evening school for the satisfaction of an urge for greater self-improvement.

REFERENCE

1. Federal Board for Vocational Education, *Bulletin 89*, Agricultural Evening Schools.

CHAPTER XX

CONTINUATION SCHOOLS

THE American continuation school is a city institution. It is rarely found in places under 2,500 population. In farm communities it is just beginning to develop. It differs from all other types of young workers' education in that attendance is compulsory either by state law or school-board ruling for certain age groups, 14 and 15 years, 16 and 17 years, or 14 to 18 years, as the case may be. It has not reached the small town or the rural community because these have generally been exempted by limiting the compulsory establishment of the schools either to places of more than a given population, or to those in which more than a minimum number, usually fifteen or twenty, of young workers within the given age group are employed.

Objectives. Most of these schools have come into existence since 1919, so they are still in the experimental stage. The objectives of the schools have been defined in general terms such as the development of civic and vocational intelligence, making better citizens, and providing opportunity for continuing education. Discussion still rages as to whether the schools are designed primarily to meet social, vocational or cultural deficiencies. The Wisconsin schools started under segregated boards of vocational education which had power to make special tax levies for these schools. Therefore they were supposed to have a strong vocational objective. Massachusetts outlined a program of instruction calling for 50% vocational

work, 25% related instruction and 25% cultural. Pennsylvania stressed the academic side and tended to interpret the term "continuation" as meaning the continuing of day-school studies. All of these states started their program with the idea that they would connect school instruction very closely with the present job and would aim towards specific preparation for the future job. In this they were strongly influenced by the German continuation schools. Practical experience, however, quickly showed that whereas the German youth of 14 years is likely to be launched in his future occupation the American youth of the same age has a present job containing very little specific instructional content and a future job which is as yet undecided. At the same time they learned that whatever instruction was taken over from the day schools needed considerable modification when applied to young workers. The result was that the shop-work for the 14 and 15-year-age group tended to become pre-vocational rather than vocational in the one place, and the academic work in the other place tended to be anything but a continuing of grade-school instruction. As instruction was developed to meet the proved needs of the pupils it tended to remedy social deficiencies, that is, the stress was, very properly, on the development of the individual pupil as a whole. This means that the instruction given became a blend of pre-vocational and some really vocational work, modified academic instruction and specific training for fitting the young worker to his new environment in employment. The stress on the vocational side in Wisconsin and Massachusetts had the effect from the very beginning of starting the schools with good shop equipment for a variety of activities, whereas in Pennsylvania shop equipment tended to be limited to a conventional woodworking, manual training outfit. Nevertheless, by 1919-20 it was quite generally agreed that the continuation school was to be a social agency rather than a voca-

tional school or an academic institution. As the middle western and far western states entered the continuation-school field and profited by the experience of the other states they took over a list of certain things to be done and certain ways of doing them rather than a definition of a general objective.

The criticism may be raised even to this day that objectives in a continuation school are not clearly defined, that they are general and indefinite. This may be true, but the fact remains that in most continuation schools there is recognition of a dozen or fifteen very definite activities and that the schools do not differ greatly in methods of handling these activities. Methods are specifically directed to develop vocation, health, social capacity and culture. All these items can, if such seems desirable, be covered by one term, the social objective. Some critics profess disappointment because the continuation school does not accomplish more in definite vocational training; others take precisely the same attitude with regard to general education as the term is used in the day school. The fact is that the continuation school tries to help the all-around development of the young worker and recognizes that different objectives are blended in the conduct of the school just as they are blended in the lives of the children. This does not necessarily imply confusion of aims or of instructional material. The subject for instruction is at every moment a definite and concrete thing, whether it be arithmetic, English, sheet-metal practice, or vocational guidance. The teacher's aim is to take each pupil as he is; to measure his progress against himself, not against some other pupil; and to do a sane, constructive piece of work towards preparing that pupil to attain his maximum possible growth as a worker and as a citizen.

Meeting pupils' needs. The treatment starts with the making of a diagnosis of the pupils. The great majority

from 14 to 18 years of age have had previous schooling amounting to eight, nine, or ten grades. In the 14 and 15-year group the number of those with higher schooling is not more than ten or fifteen per cent; in the 16 and 17-year group it is not more than thirty per cent. Large numbers of these pupils have a low rating in the qualities tested by an intelligence test, and by that very fact are destined never to get beyond low-grade or semi-skilled work. Inevitably the continuation school enrolls from the entire school system the chronic truants, dull pupils and dissatisfied young people. At the moment of enrollment of these pupils the continuation school is handicapped by their dislike of school in general and their resentment towards compulsory attendance. The poverty of at least one-fourth of the pupils frequently brings a necessity for finding employment for them, not the desirable job suited to the capacity of the pupil, but any kind of work which will insure a weekly pay-envelope. The home standards of the majority of the pupils range from medium to poor. Large numbers of them show in an extreme degree the characteristics of adolescents. These are quick to take offense, pass in a moment from docility to hot-headed resistance. They have an exaggerated idea of their own importance and of their rights, which frequently is not tempered by a full realization of their duty. They expect quick results either in promotion in employment or in advancement in school, although such expectation is not justified by their own capacity. In the swift transition from school to work they make the blunders which might be expected when immature boys and girls are called upon to rally the resources of an incomplete and usually indefinite preparation to the very specific situations which confront them.

The continuation school adjusts itself to meet these needs by the use of the fundamental three R's applied to daily experience. Previous schooling is conserved. The

physical welfare of the children is safeguarded by doctors' examination and by instruction in hygiene. The physical examination is, however, all too likely to be a swift inspection which discovers only obvious weaknesses. Teachers are at least as alert, and frequently more alert, than those in the day schools to discover and try to remedy those physical handicaps which most often are located in the eye, ear, nose or throat, but systematic medical examination is frequently not as well established as in the day school.

Vocational needs are met by the installing of industrial, commercial and home economics equipment and by provision for the study of local occupations. Such work contains a large element of guidance, especially for the younger group, in the form of try-out or pre-vocational experiences. It is an important factor in teaching methods because it motivates work for pupils generally not interested in regular school work. For many of the pupils this work is really vocational because it gives them some degree of skill and a considerable degree of knowledge in lines of work which they are likely to follow in the future.

The social needs of the pupils are met by offering academic instruction in civics, hygiene, industrial relations, thrift, manners, and worth-while recreation. This work is usually laid out in a series of unit lessons, each one of which can be covered at one session. The outline of the work may not differ greatly as it is presented to an elementary or fairly advanced class or to a group which contains elementary and advanced pupils. Since, however, it is usually presented by a discussion method of instruction, the response from the pupils will vary according to their ability. In consequence, the range of the work may be slight or great, and in either instance it tends to meet the full capacity of the pupils.

Closely related to this work which has been called social is other work which might be called cultural. It is most

likely to take the form of directed reading for recreation, music, and the discussion of appreciation of music and similar material on art or literature.

Guidance appears in all parts of the work because at every step a definite effort is made to relate the class instruction to the daily experiences of the children at home, on the street, or in employment.

The situation which has just been described may not at first sight appear to differ greatly from that in the day school. It does differ, however, because these working children are in daily contact with experiences which school children do not have. Of course there are many instances in which instruction stops at the discussion stage and does not go on to the doing stage. Nevertheless, the instruction in the continuation school is much more frequently translated into terms of action than is the case in the day school.

Some handicaps. Distinct handicaps check the work of many continuation schools. The housing situation is generally not good. In the smaller communities conditions are frequently crowded and in the larger places, even though space may be adequate, it is likely to be offered in old buildings which have been condemned for elementary or high school work. Frequently a continuation class is being instructed on the value of civic pride, care in personal appearance and the general advantages of education, in the midst of surroundings which are so dreary that one could very easily understand pupils asking why if this continued education is such a desirable thing the local school authorities do not value it sufficiently to give the pupils surroundings in which they can take some pride.

The lack of equipment in the day schools for industrial or home economics work frequently makes it impossible to provide such opportunities for the continuation school classes. Since most of the pupils are found in the

larger cities, the majority of the pupils in a state may have fair equipment, while the majority of the continuation schools in the state are poorly equipped. This is illustrated by the situation in Pennsylvania, where 82% of all the continuation school pupils in the state attend in fourteen school districts of the first and second class. In general, these districts have the means and the intention to provide satisfactory conditions and equipment, but 58% of the third class districts, that is, having less than 30,000 population, and 95% of the fourth class districts, that is, having less than 5,000 population, which maintain continuation schools, have absolutely no vocational or home economics equipment. In such places constant vigilance is needed to prevent the continuation school instruction from deteriorating to a weak dilution of day-school instruction, which does little more than keep the children discontented. On the other hand, some of the best work in the state is being done in just such schools, where an able, well-trained teacher of superior personality provides an atmosphere without which the best of equipment would avail little.

Another serious handicap is the unpopularity of these schools. Many pupils, as has been mentioned, resent the compulsory feature. Parents and employers, usually without justification in fact, claim that the schools interfere unduly with employment; other teachers in the day schools speak slightly of the continuation schools; and public opinion, uninformed and influenced by an undercurrent of hostile criticism, is likely to be suspicious, if not antagonistic.

Another serious handicap comes from the small number of pupils in attendance on any given day. One might think that a community with 200 young workers in attendance at the continuation school could offer that variety of instruction which would be needed by a group of that size. Immediately, however, one encounters the

administrative difficulty that this group is divided into five or ten smaller groups, according as the children are required to attend eight hours or five hours per week. Immediately the problem becomes that of providing a variety of equipment not for 200 pupils but for 40 or 20. Once more, to cite a specific instance, in Pennsylvania 67% of the continuation schools have an enrollment of less than 100 pupils, 14% have an enrollment of from 100 to 200, 9% have from 200 to 500, and 9% have an enrollment of more than 500. Since not more than half of these children prove to be normal or better on an intelligence test, it follows that the pupils of fairly good ability are constrained to receive instruction designed for a less intelligent group. Thus the very pupils who might be expected to respond eagerly to an opportunity for post-school instruction, feel thwarted by the instruction which is offered to them. This does not apply at all to instruction in industrial, commercial, or home economics work, but it frequently has a noticeable effect in the academic work. In spite of every effort to grade pupils according to ability, the small school is thus handicapped. The situation is very much like that which prevails in the one-room country school. The teacher of exceptional ability makes a virtue of necessity and gives a personal attention to the individual pupil of good ability; but the mediocre teacher simply flounders in this situation.

Why do these handicaps exist? It is easy to be wise after the event, so the question can be answered now, although it was not anticipated before the schools were established. In general the continuation school movement in the United States spread too swiftly; not enough time for preparation was given between the enactment of the law and the starting of the schools. In the period immediately following the World War there was widespread lack of school buildings; available funds had been greatly curtailed by war conditions; teachers trained for

this special work were not available. We attempted to launch the most modern idea in education, by compulsion, on communities, many of which were a generation behind the times in their regular school systems. So the continuation school system got a bad start. The inevitable poor schools were emphasized and the good ones were overlooked.

Some tendencies. One of the results of this experience was that some states after a brief trial of the 14-16 year old group in continuation schools, and others observing such trial on the part of neighboring states, at once eliminated or rejected the 14-16 year continuation school and established a 16 year limit of compulsory attendance at day school. While they did at the same time establish continuation schools for the 16-18 year young workers, the compulsory feature was not so vigorously enforced. Consequently, though many states have a paper program much more elaborate than their actual practice, nevertheless the 16-18 year continuation groups which have been established are avoiding many of the handicaps which have been mentioned.

Some states wishing to make haste slowly or profiting by an experience with unsatisfactory schools in small communities limited their activity to the larger cities. Thus Massachusetts established continuation schools in no community in which less than 200 young workers of the 14-16 year age group were employed, and New York not only limited the application of their act to communities having 5,000 population, but later further restricted it to the communities having at least 200 young workers in the 14-18 year age group.

Since the initial wave of continuation school legislation passed over the country in 1919-20, efforts have been largely directed towards consolidating experience. A fairly adequate supply of trained teachers has been produced, the housing situation is being relieved with reason-

able speed as communities include in their general school building program proper provision for the continuation schools. The initial resentment which appears whenever the standards of compulsory school attendance are raised is subsiding and pupils, parents and employers are taking the continuation school as an established fact.

In all the criticism of the continuation school there was a failure to realize that the actual and potential evils of child labor are with us and that the continuation school is the best remedy in sight for meeting those evils. There was a general failure to realize that the continuation school started at zero and that everything it accomplished was so much clear gain. There probably never was an educational movement in the United States which in such a short time gathered in its pupils, trained its teachers, made such progress in working out material and methods for instruction, kept such accurate records, or did more to meet the specific needs of its pupils.

So far the continuation school has barely obtained a foothold in the small town and the rural community. In the larger cities, however, it has come to stay. As time goes on, the 14-16 year group of continuation school pupils may be eliminated by being held in day school during that age period, with release for worth-while employment experience through cooperative classes, but the 16-18 year group of continuation school pupils may be expected to grow, as school officials are convinced in increasing numbers that this type of school is the one best adapted to meet the needs of the older group.

The school in action. The continuation school at work is a most interesting institution. A large volume would be needed to describe in detail the administrative features, equipment and methods of deriving instruction material and making it register with the pupils. The salient features of the school and its spirit may be described more briefly. It is now generally agreed that

the pupils should be gathered into a central school or schools where all the work can be under the close supervision of a competent principal or director in the larger city and a special teacher or group of teachers in the smaller places. This type of school is unique in that it receives new pupils every day as they drop out of day school to go to work and loses its old pupils every day as they attain the birthday which releases them from compulsory attendance. The clerical work of recording the assignments of large numbers of pupils constantly shifting is carried on with such efficiency that a telephone request for information is usually answered without delay.

Because this type of school furnishes a new experience to each pupil who enrolls, the initial reception of the pupil is a very important matter. The new pupil may go into the entry or reservoir class of the big school and after careful investigation on the part of the teachers in charge be guided to the classes which seem best suited to his individual needs, or he may have a brief interview with the teacher in charge of the small school. In either case constant effort is made to convince the pupil that he has entered an institution where a spirit of friendly helpfulness prevails.

An inspection of the shop equipment and the shop-work in the best schools reveals full-size machines and commercial production in the industrial shops, up-to-date office equipment in the commercial classes, and home economics equipment which enables a girl to bake a loaf of bread, make a hat or gown which needs no apologies, or plan home decoration appropriate for the modest rooms of her present home or for the more elaborate home which may await her in the future. The classes which use this equipment may contain some pupils for whom the work is pre-vocational, a try-out experience to help them find their own interests and ability; other pupils, for whom

the work is preparatory to a line of employment which they hope or expect to enter; and other pupils, for whom it may be an extension of work in which they are already engaged. Though these different types of pupils may be mingled in the class they are very distinct in the mind of the instructor, who usually has no great difficulty in selecting from the work passing through the shop the task that is suited to the stage of advancement of each pupil.

So far as possible classes are kept down to about 20 pupils so that the individual attention needed by each pupil may be furnished. Pupils may be classified by school grade previously completed, by present or desired occupation, by intelligence tests, or by a combination of all three. The intelligence test is used, as yet, only to a limited extent.

The enforcement of attendance requires frequent co-operation between the school and the employer. Sometimes a real emergency arises in employment which prevents the pupil from attending on the day assigned. Invariably the school cooperates with the employer in this circumstance and permits the pupil to make up the time lost on another day. On the other hand, the pupil may be inexcusably absent on the day assigned and is then required to make up the lost session. A small group of persistent truants needs the constant supervision of the attendance officer, but ordinary absence is checked through the visits which teachers make to the home or place of employment. Lack of effective attendance laws in some states and lack of effective cooperation on the part of the attendance officer in some communities give an inexcusably low percentage of attendance in some schools, but ordinarily continuation school percentage of attendance compares very favorably with the high school percentage in the same community and it is by no means an infrequent occurrence to have the percentage in the

continuation school surpass that of any other division of the school system.

The follow-up work of the teachers is another unique feature of the continuation schools. In many systems each teacher devotes from four to twelve hours a week of school time to visiting the pupils' homes or places of employment. The purpose of this visit is to get first-hand information as to the needs of the individual pupil and as to the way in which the school can meet those needs. Sometimes the visiting is done by a small group of special teachers, but the usual experience is that the best values in this work are obtained when each teacher follows up his own pupils. These visits give the teachers some information which is valuable in planning instruction for the individual pupil and at the same time keep them in contact with employment conditions so that their work with the entire group is made more effective. Outside contacts are carried further by establishing relations with such agencies as Boy and Girl Scouts, Red Cross, hospital or dental clinics, settlement workers and the juvenile courts. Frequently these other agencies are able to supplement the efforts of the continuation school in guiding an individual pupil.

Instruction tends to resolve itself into four general types: Industrial shop-work for boys, commercial work for boys and girls, home economics work for girls, which is sometimes combined with trade millinery or trade dressmaking, and general studies. Sometimes the general studies are presented as related work by the method of lesson-sheets, which has been described. At other times they are given by means of group instruction. These studies tend to lie within the field of civics, English, hygiene, mathematics, science, applied art and industrial geography or history. This instruction has many points in common with that which has been described for cooperative classes and evening schools. In addition,

however, the outstanding feature of the continuation school is its work with the individual pupil. Innumerable instances could be cited, of which the following are typical:

A boy was discharged from his job because he worked only when the boss was looking at him. At first his attitude was that his repeated failure to keep a position was because he was "out of luck." He had a heart-to-heart talk with his teacher. The class, without any unpleasant reference to the boy, had a lesson on the duties of an employee to his employer. In order to help the boy to become trustworthy he was given special work in a shop which allowed him to work in another room apart from the class. He was given little extra duties at the school. Then another job was found for him on which at the time of this report he had been working satisfactorily for two months.

In a small continuation school enrolling 140 pupils and having only one teacher the class became interested in a hygiene lesson on the care of the teeth. Charts were shown illustrating the structure of the teeth and the progress of decay. Some of the English work was based on the class discussion. Arrangements were made with a local dentist by which appointments were made for pupils to go to the dentist during school hours and to pay for their work at the rate of fifty cents a week. By the end of that year every one of the 140 pupils had clean teeth and filled cavities.

The applied art work in a large school consisted of study in color harmony and design. This was directly related to the home economics work in sewing. At the end of the year, at a reception given to parents and friends of the pupils, 350 girls walked across the stage each one wearing an attractive hat and gown which she had designed and made for herself.

One of the boys had no interest in arithmetic. So far

as sixth grade work was concerned he said "I had it." So far as seventh grade work was concerned he said "I hate it." He wished to learn to make mechanical drawings and to read blueprints. He discovered at once that he could not make or read a drawing on a scale of one-tenth inch to the foot without constant use of sixth and seventh grade arithmetic. He cheerfully made calculations for his drawing, although he had no interest in similar calculations as abstractions.

The follow-up visit of one of the teachers uncovered the fact that if a girl in her commercial class could learn to cut stencils she could take charge of all the mimeograph work in the office where she was employed. A few hours of instruction and practice in the continuation school resulted in a promotion for the girl and an increase of wages.

In the previous descriptions of type groups of young workers mention was made of the fact that many homes are partly broken by the death of one or more of the parents. Burdge's study in New York State reveals that one boy in five had lost his father. Presumably similar conditions prevail for girls. To meet this situation one of the large continuation schools directs the follow-up work of two teachers to the homes of girls whose mothers are not living. One such visit revealed the fact that for four days canned tomato soup had been the only food served at noon-time because it was easy to prepare and the girl housekeeper had no knowledge of cooking. Arrangements were made with the father by which definite, well-balanced meals for each week were planned by the home-making teacher and the girl.

It will be noted that no mention has been made of mass improvement resulting from the work of the continuation school, but that on the contrary each of the incidents cited illustrates a single item which improved the condition of a single pupil. This plan is the very essence of

continuation school work. Instruction centers on the simple, homely incidents of daily life of ordinary boys and girls. The school strives to get a specific result into the lives of as many individuals as possible. The slogan of the Milwaukee continuation school at one time was, "Every pupil a better child to-morrow because he was in the continuation school to-day." Recently the writer had more than a thousand letters from boys and girls who had formerly been pupils in the Pennsylvania continuation schools. These pupils lived in communities ranging from Philadelphia to the small mining towns. Practically every letter cited an instance of a specific benefit derived from the school experience. One pupil had learned to make change; another had formed the habit of making small weekly deposits in a savings bank, and had continued the habit since; another had learned to take pride in personal appearance; another had learned what line of work he wished to enter. The homely sincerity of these replies was nowhere better illustrated than in the letter of one girl who wrote, "In the continuation school I learned that germs cause disease, and now I beat the rugs."

The usual method of instruction in the continuation school is a combination of unit lesson-sheets, such as have been described, and group instruction by the discussion method. The use of text-books and of the recitation method is reduced to a minimum. Investigation will almost always show that a poor continuation school is one in which the teacher relies on text-books and the recitation method of instruction. Good teachers use books chiefly as reference material to supplement points already brought out in the class discussion or in the use of the lesson-sheet. They are much more likely to rely on pamphlets issued by insurance companies or manufacturers, on the mechanics' hand-book, papers and magazines like *The Literary Digest* and the *Review of Reviews*.

Much of the English work is based on the proper use of blanks like telegraph forms and money-orders, or the application for an automobile license or tax duplicate. Practice in arithmetic is obtained by studying a railroad time-table, filling out the cash-slips used in a grocery store or department store, or the deposit slips or payroll slips used in banks. Faced by the formlessness and monotony of the tasks on which these children are employed, teachers have analyzed these tasks and have discovered instruction material even in what seemed to be the most hopeless. One of the most interesting job analyses made by the California group is that on the bootblack's job. This analysis points the way from the boy's first contact with the job to the winning of the position of proprietor of a bootblack stand. From the "blind-alley" job and the routine daily experience of the pupils the good continuation school teachers have plucked vivid instruction material. This procedure is the salvation of the continuation school in the small town. Such schools may not have adequate shop equipment, but they can have practical instruction.

One might wonder after reading a list of subjects presented in the continuation school how the teachers get time to cover so many subjects in the two or four hours assigned. They do it because these instructors are teaching boys and girls rather than subjects. The subjects are blended in instruction just as they are blended in the daily lives of the pupils. The science in the fact that germs may lurk in rugs becomes the basis of an English theme. The current events talk on restricted immigration is blended with a little arithmetic on total immigration and the percentage quota perhaps of Italy, where Carmencita was born, forms a specific arithmetic problem for Carmencita. The home economics lesson on cereals involves geography as to how the cereals get to market, thrift in purchasing, science on their food value, and a

rather hard but important problem in arithmetic to translate the quantities of the recipe for five into the home problem of what to do about it when there are two more people for breakfast. The teachers even find time for instruction in what may be called Manners and Conduct. The class discusses and illustrates proper conduct in the trolley car, at a dance, in making an introduction, and so on. The swift application of this instruction in the lives of the pupils is illustrated by the story of Mary who went with her brother and another boy and girl to a restaurant. As they came out the brother revealed his admiration by blurting, "Gee, Mary, where did you learn to order food so swell," and Mary promptly replied that she learned it in the continuation school.

Guidance work permeates every phase of activity in the good continuation school, and the placement service for finding work for those out of employment not only solves many an emergency in the lives of the pupils but also gains from them an appreciation of the work of the continuation school which carries over into the classrooms. Sometimes the guidance is casual, as where the work in hygiene, English, civics or what not, is quietly translated into terms of their daily experiences. At other times it takes the form of the careful study of opportunities and requirements in the dominant local industries. The placement may be illustrated by the service in the Boston school. Ten years ago the child out of work found employment by haphazard application. By 1917 six hundred employers were in the habit of telephoning to the continuation school when they needed juvenile workers. During the past year sixteen hundred employers used this service.

Thus for practically every need of the young worker the continuation school can provide a remedy. Not all these remedies are found in every school, not all of them effect complete cures, but for meeting most needs a

desire for that which we call cultural is well nigh impossible.

That this remedy is recognized and is being applied in North Carolina is evidenced by the fact that during the year 1921-22, while the facts cited were being collected, the state maintained in rural regions 47 vocational agricultural day schools for whites and 18 for negroes, with a total enrollment of 1396 pupils, and at least 35 evening vocational schools enrolling 1190 whites and 395 negroes. During the next year 14 additional day schools were operated and 13 part-time schools.⁴

The extent of application of the remedy in the United States is shown by the development of vocational agricultural education, largely since 1917, until in 1924 it consisted of almost 3000 day and part-time schools enrolling 86,000 pupils. The special part-time and evening schools for young rural workers which in 1921 for the first time were recorded in the activities of the Federal Board for Vocational Education, were in 1924 reported from 26 states with a total enrollment of about 17,000 pupils.

This statement on existing schools has two important applications to the picture of rural life set forth in the preceding pages. The first is that the vocational agricultural day, part-time, and evening schools are going concerns, growing out of existing American conditions and well adapted to meet the proved needs of rural youths both before they finish their day-school attendance, and after they join the ranks of young rural workers. As they succeed in meeting the vocational needs in their respective communities, they are the logical means for meeting cultural needs. In fact one of their specific objectives is to increase the civic and vocational intelligence of the pupils.

The second application is to emphasize the fact that at present these schools enroll only 86,000. There are 7,000,000 in the 14 to 20 year group in our rural popula-

nique of commerce and industry makes such jobs inevitable. But when a child working on such a job receives the stimulus of the right kind of instruction and the right kind of guidance in the continuation school, you get this result: There is opportunity in every job providing the young worker applies to that job the best that is in him. Experience on the job itself is of little value. Instruction and guidance in the school apart from the job are of little value. But when the job is combined with the school, and instruction and guidance are administered, when attached to the blind-alley job you have an open-eyed youngster with a problem and a plan, you have knocked the end out of the blind-alley job. Out of motivated school work comes motivated life, and there is no blind-alley where there is motive.

The continuation school to-day is confronted by two serious difficulties. The first is the compulsory feature in the attendance; the second is a prevalent tendency, especially in the small town, to try to run the schools on a cheap basis. Compulsion is necessary because we must choose between a 10% voluntary attendance, such as we get in the evening schools, and a 100% need for training young workers to adapt themselves to the modern complicated social and industrial structure. Presumably, just as people have adjusted themselves to a 14 year and a 16 year requirement for day school, they will adjust themselves to the continuation school, and present difficulties will diminish or disappear in time.

So far as costs are concerned the annual pupil per capita ranges from \$6 to \$60 with a median of \$32.75. The pupil hour-cost ranges from 3 cents to 39 cents with a median of 15.5 cents. Naturally, per capita costs tend to be higher in the small schools, and these are the very ones which feel least able to pay. Communities which without protest meet the relatively high cost of secondary school education for the comparatively small proportion

of high school pupils are slow to give an equivalent opportunity to the working children. Until this feeling is overcome we shall have all too many unsatisfactory continuation schools. At present teachers' salaries are somewhat higher than for elementary schools but are not attractive to the high type of teacher needed in continuation school work. When such teachers do enter the continuation school they are likely to qualify very quickly for promotion to junior and senior high schools.

The continuation school limited to the 14-16 year group is handicapped by the fact that desirable openings in employment tend to come after the sixteenth birthday. The pupils are just getting to the place where the instruction and guidance in the continuation school are beginning to function when they are released from all contact with the school. The continuation school ought to retain its pupils until they are 18 years old.

A guess at the future. With no retraction of what has been said concerning the work of the continuation school with the 14-16 year group, the fact remains that experience with this age group shows that so far as worth-while employment is concerned these years are largely wasted. Perhaps 30% of this younger group are better off in employment, but for the majority of them the most profitable expenditure of their time up to the age of 16 years is to attend an all-day school, of the modern junior high school type. The 30% who are handicapped by poverty or low intelligence can be better cared for in cooperative classes of the week-in, week-out type than in the continuation school. The Cincinnati experience shows convincing proof of this. But to force these pupils back into day school instruction of the type which they have already repudiated by seeking employment is not a desirable remedy. Errors which were made by moving too swiftly to the establishment of continuation schools should not be repeated by moving too swiftly to force

these children back into day school. In many of the manufacturing states considerable readjustment of employment conditions would be forced by the withdrawal of the 14-16 year group. The rights of employers deserve consideration in this connection. Probably the best procedure would be to advance from a sixth grade 14-year minimum to an eighth grade 16-year minimum by a series of steps, one grade and one year at a time, with sufficient interval for employment conditions to adjust to the change. These could be made minimum requirements while local communities were granted the privilege of proceeding more rapidly if their condition warranted such action. Undoubtedly conditions would warrant such action very extensively in small towns and rural communities which at present are largely exempt from continuation school requirements.

It would appear that the best work of the continuation school of the future will be with the 16-18 year group. At present this work is proceeding rather slowly, because administrators wish to avoid difficulties similar to those met in the rapid expansion of the 14-16 year continuation school. There is a decided tendency in actual practice if not in law to have communities expand their work with the older group as they have assurance of being able to install a reasonably good school.

In the instruction there is probability of continued stress on the social needs of the pupil, more effective work in physical education and, as we develop a generation of teachers who know more about vocations, better work on the vocational side. Because of the traditions of the teachers, cultural studies will run as a thin thread through this instruction, which will be followed on a voluntary basis in later and more mature years by a relatively small proportion of the pupils.

A study of typical American continuation schools in 1921 showed a distribution of 39% in general classes, 20%

in pre-vocational or trade-finding classes, and about 10% in each of the divisions of home-making, trade extension, trade preparatory and commercial work. These figures substantiate the belief that the social objective is dominant in this type of school.

Present experience shows that as between the 14 and 15 year group, and the 16 and 17 year group, the points of resemblance are more than the points of difference. The older group contains a larger percentage needing an equivalent for high school instruction and they are more likely to be launched in their probable future line of work. On the whole, however, they need the same kind of instruction material and method as the younger group.

Rural part-time schools. The latest development in the continuation school field is the extension of this type of work to rural communities. Ohio, Minnesota, New York, North Carolina and other states have attempted to reach the young worker on the farm. The total enrollment in these schools in the United States is only about 2,500. In many respects this rural movement differs decidedly from the city movement. The compulsory feature is absolutely lacking. The tendency is to go slowly and to be content with a few good experiments. Instead of regular attendance for a number of hours each week, the classes are likely to be held for a continuous session of two, three or four weeks during a dull season. Instruction for the entire group is focused on one or two specific problems, in which the majority of the group are interested. These projects are similar to those studied in the all-day vocational agricultural school, the adult evening school for farmers, or the boy and girl club-work; that is, they deal with such problems as dairy-husbandry, poultry-feeding, etc. The chief stress is vocational. Frequently a social feature is introduced in the form of gymnasium work or a basket-ball team. Up to the present, these classes have dealt almost exclusively with boys.

Leaders in agricultural education all over the country are keenly interested and a considerable expansion in this work may be expected. The chief handicap is to get teachers. At present the work is an extra task, assigned to the day-school vocational agricultural teacher. Frequently such a teacher who would like to start one of these classes cannot do so because his time is already fully occupied by the day-school pupils.

In this brief description of the American continuation school the writer has purposely avoided details on matters of administration and curriculum. Those are abundantly described in the official publications of Federal and State boards of which some are listed at the end of this chapter. Rather we have attempted to picture the essential aims, methods and spirit of the school. Boys and girls leave day-school to go to work for a variety of reasons, of which the belief that the day-school has no further offering of sufficient value to justify remaining, is an important item. Wiser folk than these children may argue that such belief is wrong, but the fact remains that the children act on this belief. It is no exaggeration to state that if the spirit of the continuation school could be injected into the day school, and the experience of continuation-school teachers could be acquired by day-school teachers, our American public schools would experience a renaissance which in a decade would remove many of the present problems of the education of young workers.

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CHAPTER XXI

GUIDANCE

GUIDANCE is a term as broad as education itself. It deals with ethical life, health, recreation, citizenship, home life and vocation. The justification for introducing it as a separate activity in schools is that such emphasis provides a constant influence for minimizing stress on mere subject matter of instruction and for a desirable increase of stress on the child as a living, growing individual. As a separate activity it substitutes for casual attempts to relate school instruction to every-day life a plan of conscious effort based on accurate knowledge and scientific method. Young people are constantly called upon to make decisions in the making of which they have unwise, false or haphazard guidance, or they have competent guidance. It is to insure a reasonable amount of such competent guidance that these agencies are installed in our schools.

Aims. Guidance aims to help adapt the schools to the needs of the pupils and the community and to provide equality of opportunity for all children. Since the choice of occupation is of vital importance to each individual, guidance aims to assist each pupil in choosing, preparing for, entering upon and making progress in occupation. Since wisdom in making such choice depends upon knowledge of the problems and characteristics of the common occupations, of the relation of the worker to his own and other occupations, and to society as a whole, guidance agencies collect this information and transmit it to the

pupil. Because the securing of better cooperation between the schools and leaders in commerce, industry and the professions is essential, this becomes a part of the guidance program. Because the field for guidance includes more than the choice of vocation, guidance agencies favor the establishment of courses of study which combine both cultural and practical studies.

Some people oppose guidance agencies because of a belief and fear that counsellors expect to classify children rigidly and early in life to assign them to specific vocations. Nothing could be further from the truth. The constant effort is to develop in young people an ability and a habit for self-guidance. On the basis of as much accurate information as can be provided, the young person makes his own choice. Further, these choices are not final. Each choice decides a single step. If as the young person develops in knowledge and experience he wishes to make a decided change in plans, such a change is accepted as a natural part of his development. No counsellor thinks of laying out a plan which extends like an arrow from the grade school to the ultimate occupation. The route is not an arrow, it is a series of zigzags. But this series is determined by thoughtful choice at each step. It provides a purposeful course for what otherwise would be largely aimless drifting.

Guidance aims to keep each child in school as long as possible and to have him follow a consistent course of study. This involves on the one hand accurate information to the child's native intelligence, dominant interests and physical competence, as well as information concerning the desires of the parents and their financial and social ability to carry out their desires. On the other hand, it involves the use of knowledge about the requirements of employment, both general, for a certain field and specific for certain jobs. Always it involves the competent cooperation of each teacher, so that the best use can be made

of opportunities in the school. Specifically, this means a studying and testing of pupils' possibilities in which the general intelligence test is used with care; a continuing observation of the unfolding interests of the child without undue reliance on that interest which may at the moment be dominant; and the correction of physical deficiencies, or a modification of plan if these cannot be corrected. The practical method of keeping in touch with parents is a system of home visitation carried on by tactful, trained workers. Employment requirements are learned through surveys carried on by trained investigators and are usually described in attractive written pamphlets which can be used for instruction material. The cooperation of teachers and the effective use of school equipment are obtained by planning a program which enlists the interest and help of all the teachers in the school system.

Up to this point the child is a pupil rather than a young worker. Since, however, he is aided in the search for his first job by the guidance experience he has encountered up to that time, it is worth while to note in some detail what that experience has been.

Methods. The testing of pupils' capacity and interests should begin in the first years of school life. Those who know most about general intelligence tests agree that deductions regarding any individual should be made with the greatest care; that no important decision should be made on the basis of a group test alone; and that decisions concerning individuals should be cautiously based on examination by a carefully trained and experienced psychologist. These tests give rather accurate information as to the probable relative success of the individual in pursuing academic studies in later years. They indicate the probable length of time he will remain in school before dropping out to go to work. Studies in Cincinnati carried on over a series of years show that low mentality

practically always indicates that the pupil will leave school early in the period when he can legally do so. With a 14-year age limit on compulsory day-school attendance, 66% of those leaving school in Cincinnati between 14 and 16 were more than a year retarded. When the age limit was raised to 15 for boys and 16 for girls, the retardation, figured on the same basis, rose to 80%. Comparative studies between those who had left school and those who remained in school showed that the latter were superior in every mental and physical measurement made. At the same time, young workers 18 years of age contained 42% who were materially below the norms for their age.

This indicates that intelligence tests can give warning two or three years in advance of the pupil's dropping out of school. Good school systems provide opportunities for pre-vocational instruction in anticipation of this drop-out.

The psychological test for determining vocational aptitude is still decidedly in the experimental stage. Such considerations as the social and economic status of the individual and the geographic or other conditions which determine the kind of occupations prevailing in any community frequently have greater weight in determining a youth's occupation than his mental equipment. Trained guidance counsellors consider all these factors, exercise due caution in changing the school activities of the child, and are at all times restricted because the range of available opportunities in the school is limited. Where the personality, tact and knowledge of the counsellor are good the pupil is subjected to a sane influence continuing over a long period of time. Where, as is sometimes the case, the counsellor is lacking, the effect on the pupil varies from mere irritation to actual blundering. The failure of immature young people to grasp the meaning of the guidance work, as well as the failure of an occasional counsellor to grasp that same meaning is illustrated by this

incident: A girl in the junior year of high school when asked what were the activities of the teacher who served as counsellor replied, "Oh, she stops you in the corridors and asks impertinent questions as to why you were absent from school." Such incidents distort public opinion which is not likely to be informed about the quiet, sane counsel which goes on day by day, wisely directing the school experiences of the pupil.

Knowledge of home conditions is essential to making accurate judgment of the child's ability, interests and ambitions. There is a growing tendency to use the full time of specially trained workers or the part time of carefully selected teachers in making visits to the home which will result in better understanding between home and school and the gaining of the parent's approval and cooperation in laying out the school experience for the child. This work is supplemented by circular letters and pamphlets giving definite information about the curricula and courses offered and the work towards which they lead.

School counsellors constantly endeavor to get cooperation from social and religious organizations which can supplement the general school guidance or provide guidance experience along lines where the school is lacking.

The study of occupations in a very elementary form is introduced in some schools as far down as the sixth grade in order that those pupils who leave at the end of that grade may at least have had their attention directed towards the need of planning their occupational career. The opportunity for continuing such instruction during the next two years is one of the strong arguments for setting the eighth grade as the minimum point at which pupils may be released from school. This instruction is carried on as a regular school study. It may be called vocational civics, social studies, or occupations. Some excellent text-books suited to the comprehension of chil-

dren as low as the sixth grade have been produced. These texts are supplemented by information about the local conditions pertaining to the industry selected for study. What might be called the ethical content of each industry receives careful consideration, usually in terms of what worth-while service may be rendered by one engaged in that occupation. The outline for such a study may include: The size and importance of the occupation in the given community; whether it is increasing or decreasing; steady or seasonal; the hours of labor per day and week; overtime; amount of idle time per year. Conditions of labor for light, heat, ventilation; wash and rest rooms; danger from machinery, dust, or gases; moral conditions; stimulating or deadening effect of the work. Requirements of the work as regards skilled, semi-skilled or unskilled labor; manual or mental ability; special requirements, such as strength, height, quickness, keen vision; requirements of previous experience, education, or personal qualities. Opportunities in the occupation for service; for initial pay; later pay and promotion; other compensation, such as bonus, pension, or vacation; opportunity for training either in the plant or in special schools.

As the pupil continues in school he is exposed to varied experiences. These involve an element of choice wherever school organization, as for instance in a junior high school, offers a possibility for choice. Even where the course is strictly prescribed, effort is made to present a varied experience in industrial, commercial, and home economics work, and in cooperative pupil activities. These cooperative or extra-curricular activities are designed to develop interests in avocation. They take the form of orchestra practice, debating clubs, social clubs, hobby clubs, a school paper, athletics, or social gatherings.

In every community children of superior ability are found who are compelled by poverty to leave school. Guidance agencies solicit funds which are distributed as

scholarships to such pupils to enable them to remain longer in school.

Each of the methods or activities mentioned helps to prolong the period during which children are obtaining preparation for their life work. They have a remarkable effect in gaining the participation of all the teachers. This reacts on every phase of class instruction. Thus the guidance spirit in the school sets up a strong counter-attraction to the lure of employment. Such a plan of guidance provides a remedy for each of the chief reasons why children leave school prematurely. The pupil of slight ability in academic studies is given work motivated by its vocational or social content; the pupil who is not interested in school is introduced to a variety of additional interests; the decision of the parent to remove the child is modified by the parent's increased knowledge of the value of further schooling; the child's desire to engage in the interesting experiences of employment is partly satisfied by providing interesting experiences in school shops; the compulsion of poverty is removed by the granting of a scholarship. While the child is in school his study of occupations, shop experiences and cooperative activities provides some safeguard against later drifting on the job, lack of knowledge of employment conditions and lack of training. Those capable of nothing better than low-grade or semi-skilled work are at least better informed, and those of greater capacity are discovered and are encouraged to prolong their school preparation.

The guidance plan calls for a cumulative record of each child covering successive intelligence tests, interests and accomplishments while in school, information about home conditions derived from home visitation, health record, and any incidental information which would be helpful. Under an ideal arrangement which at present is only approximated in even the best of school systems, this

accumulated information is received by the guidance worker when the pupil decides to leave school and enter the ranks of the young workers. At this stage, just as at every previous stage, the guidance worker proceeds cautiously. Decisions must be made by the child and by the parent. Whatever decision or choice is made is recognized as tentative. The type of job desired may not be available at the moment so that a temporary choice is necessary. The personal knowledge of the child that comes from long contact may be lacking. With all these handicaps, however, the situation is much better than it was when children plunged into employment without guidance. One of the most important experiences at this transition step in the child's life is the impression he receives that here is an agency to which he may return for free, helpful service in helping him solve any of the problems which confront him as a young worker.

Relation to young workers. It is obvious that where the last two years of the pupil's schooling have been spent in a cooperative class, or the next two years will involve enrollment in a continuation school, the opportunities for effective guidance are greatly increased. The previous description of the continuation school has shown that guidance methods prevail in that institution. Where the cumulative record-card of the pupil comes to the continuation school it has great value. Unfortunately such a record is provided in very few schools. Of twenty-one typical continuation schools which reported to Dr. Smith on this matter, four had no vocational guidance, eleven gave the matter very little attention, only one had a vocational counsellor, one other provided for follow-up work by teachers, one kept a catalogue of desirable employment, and three made some study of student aptitudes. The detail just given indicates the chasm still existing between well-proved experience and actual practice both in the fields of guidance and of continuation-

school work. This chasm exists because even yet communities are not convinced of the need of spending money to translate their guidance theory into guidance practice.

In cities like Philadelphia, Buffalo, Pittsburgh, Chicago and Cincinnati, the guidance bureau is closely linked to the continuation school. They have psychological tests, home visitation, study of occupations, varied experience in school shops and placement. While none of these cities would claim maximum efficiency they are active in each of the phases of work which have been listed. The study of occupations is especially pertinent in the work of the 16-18 year group because these young people are settling down into what will probably be their permanent line of work.

In general the guidance bureaus have very slight contact with the evening schools. As young workers come into the central bureau they are invariably directed to evening-school opportunities, but from that point on there is little directed guidance. Cumulative records, tests, follow-up work and organized counsel are practically unknown in evening-school work. Teachers do exert considerable personal influence on pupils, but the contact is casual rather than organized. The initiative of the pupil chiefly determines the amount of try-out in his evening-school experience. It is likely to be limited to a choice of studies at the beginning of the term. If this choice is unfortunate the pupil tends to drop out and stay out rather than to seek a transfer to another experience. In the evening school as in the central bureau continuing guidance depends to a large extent on the voluntary action of the young worker, so that those who need it most are least likely to seek it.

In apprentice classes the young workers as a group have found their vocational place, although of course there are many individual exceptions to this statement.

There is no lack of information, however, about the line of work which they have selected, and their contact with their instructors gives them very definite guidance as to their needs and further opportunities for improvement. If the apprentices lack the initiative or the will to pursue further studies the responsibility rests on their own shoulders.

Guidance into correspondence school courses is a part of the work of every central school bureau. So far as the correspondence schools themselves are concerned, there is practically no guidance, and this is one important reason for the great waste of money and energy resulting from incompleted courses. The American School has developed an excellent course in vocational guidance by correspondence methods. The success of this plan in helping students to choose their later courses wisely has been very great. It is to be hoped that others of the better type of correspondence schools will develop similar courses.

Organization. The organization of a guidance system in any community calls for a bureau under central direction which can coordinate the efforts of the specialist in guidance and those of the regular teachers. The publicity campaign is in constant operation. Bulletins describing the work of the junior and senior high schools and of the special schools are distributed to the younger pupils and to the parents. Representatives from the higher or special schools speak before classes in the elementary schools. Many times graduating classes are taken on a tour of inspection to a number of the other schools. The organization calls for a counsellor on full time or part time in each school. Special supervisors look after such activities as after-school and Saturday work, visits to local industries, stores, museums, and art galleries. Other supervisors look after the special needs of elementary schools, junior high schools, senior high

schools, and trade schools. Placement requires another set of workers. Other activities are the follow-up and readjustment of young workers already placed, statistical studies and research, maintenance of cooperative relations with other organizations, and constant efforts to inject guidance into classroom instruction. This description applies to the larger cities. In smaller places these activities are assigned to a smaller number of persons until the organization becomes so informal that in a small town the supervising principal of schools may carry on some very effective guidance work in the midst of his many other duties.

Because any phase of guidance is valuable and because a single phase can be carried on successfully, even if other phases are lacking, it is impossible to state how much conscious guidance work is being carried on in this country. In 1923 the United States Bureau of Education obtained reports from 130 high schools in 32 states. These had an average enrollment of 1,002 pupils. Ninety-seven schools offered special vocational courses, 54 had reports on surveys of local occupations, 46 reported pre-vocational courses or vocational guidance in grades seven and eight, 81 made organized efforts to discover vocational aptitudes through work in English, 54 required or urged teachers to act as counsellors, 34 offered courses in vocational civics or occupations, 68 required written reports on local industries, 75 organized class excursions, 51 employed a director or special teacher, 86 had employment bureaus, 36 used some mental tests to aid in determining vocational aptitudes.

A general estimate of guidance work in this country shows that the aims and methods are definite, the organization is flexible and interest is widespread. The movement is having a tremendous effect on our whole educational system. Since 1895, when our schools were stagnating, the guidance spirit under one name or another

has worked great changes. The professional improvement of teachers, the installing of pre-vocational and vocational opportunities, the introduction of motivated school work, the use of advisory committees, the growth of home and school associations, the revision of school curricula and of school administration, the development of the junior high school and the reorganization of the senior high school are all manifestations of the guidance spirit. These activities are bringing constant improvement in getting school instruction closer to life. The guidance influence following pupils after they leave school, concerns itself with expansions in evening schools, part-time schools, and every phase of post-school educational opportunity. A constructive program for the future calls for a wider adoption of the experience and methods of those school systems which have well organized guidance organization; in particular it calls for more activity even in the best systems in providing more guidance service for the young people who have left school and gone to work.

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CHAPTER XXII

SUMMARY AND CONCLUSIONS

WE HAVE traced the development of educational opportunities for young workers from the earliest times. At every step the salient fact emerges that the form and spirit of these opportunities were determined by the economic and social conditions of each period. During the swift and complex expansion and change of economic and social conditions caused by the industrial evolution, our schools have been unable to meet the increasing and changing demands involved in complete preparation of children and youth for adjustment to the problem of earning a living and living a life. Yet always they have pursued a course of consistent improvement, developing through experience and trial, and on the whole keeping well abreast, perhaps a little ahead, of public opinion. As we have traced the successive phases of the growth of the schools we have seen them, decade by decade, improving in their efforts and in their results in making instruction function more and more completely in the later lives of the pupils. On the whole development has been consistent. Therefore it is to be expected that the course for the immediate future can be indicated by the general direction which has been pursued in the past, particularly in the past twenty-five years.

The industrial evolution has brought to the mass of people shorter hours for labor, increased time of leisure, and a better standard of living. The prospect is that these tendencies will increase. Since such factors tend

to develop in large numbers of people a desire for cultural improvement, the natural inference is that the desire of parents will provide prolonged schooling for their children, and there will be an increased urge for the young workers themselves in larger numbers to avail themselves of post-school opportunities for further education. Since, however, the majority of young people have slight desire, or no desire, for further schooling, we need not expect a startling increase of voluntary enrollment. Many communities could double or treble such enrollment, yet only a relatively small percentage of the group of young workers would be affected.

Because the need for more training for adjustment to economic and social conditions will be much greater than the voluntary response, we may expect increasing compulsion for the younger group to retain them in day school up to the age of 16 years and in part-time schools during working hours up to the age of 18 years. To make such compulsion tolerable to adolescent youth there must and will be great improvement in the day schools which will be in the form of the providing of more varied opportunities for specific training in junior and senior high schools and in special schools and classes. Training for adjustment to economic conditions implies an expansion of vocational education; training for adjustment to social conditions implies continued and expanding stress of instruction in the social-civic studies. Naturally there will be complaint from taxpayers, but in the end they will pay. As they paid with reasonable willingness in the past for special education for the few, they will pay more willingly in the future for special education for all.

The old apprenticeship training which threw the burden on the employer has passed with the passing of conditions which supported it. The new apprenticeship has come. In this the burden of initiative and of detail is placed upon the public schools. It is, however, marked

by a splendid cooperation between the schools, organized labor and organized employers, which not only provides a training well suited to the demands of modern industry, but also invokes a spirit full of promise for the future because it is essentially in accord with our institutions of democracy.

The steady growth of legal control of child labor may be expected to continue. In so far as this involves control of special education for young workers we need expect no diminution of the centralizing of control. This central control, however, will be tempered by the democratic idea that local initiative and local responsibility for detail should be encouraged. Those in charge of bureaus, whether municipal, state, or federal, believe and practice the doctrine that where compulsion seems necessary its irritating effect should be minimized by determining policies on the basis of conferences conducted in a democratic manner. By means of complete information, the removal of misunderstandings and the development of desire for improvement, those in charge of bureaus strive and will strive to use centralization as a means for increased efficiency rather than as a method for compulsion.

The movement for the prolonging of the period of training moves steadily forward. In the day schools the percentage of children under 18 years of age enrolled has increased from three-fifths of the group in 1870 to more than three-fourths in 1920. The number of children under 15 years of age employed changed little in proportion from 1870 to 1910, but since that time has been reduced by more than half. This movement is justified not only by the need for increased preparation for meeting the greater complexity of modern life, but also by the fact that prolonging the period of training gives each individual a better chance to discover and develop his own maximum capacity. It also gives opportunity to reduce

the serious menace involved in almost three per cent of illiteracy in the half million native-born illiterates between 10 and 15 years of age. The process of raising the age or grade at which children may be released from day school should, however, develop with caution. It would be unwise to force large numbers of young people to remain in day schools and in a type of instruction which so many of them repudiate by leaving school to go to work. The best school systems through their vocational classes, revised curricula and good teaching methods can give their pupils value received for increased time of school attendance, but this is not true of many school systems, especially in the small towns. Further, the rights of employers should be considered in the considerable readjustment of employment conditions required by this change. Readjustment should proceed by raising the requirements one year or one grade at a time, in order that the schools may be brought up to the required standard and employment conditions may not be unduly disturbed. Due caution should be observed lest we rear a generation of children who fail to recognize the dignity and service in worth-while labor.

As regards those special types of education within the day schools which contribute to training for vocations, the manual training plan may be expected to diminish except as it is modified to become a form of pre-vocational training. Trade and technical schools may be expected to render important service, but they are not likely to grow. This is partly due to the great expense involved in building and equipping them, to the difficulty of retaining pupils until they complete the course, and to the difficulty of providing training for subdivided industry. Another important reason is that cooperative classes conducted on the week-in and week-out plan save expense, satisfy the desire of the pupils to engage in work under actual employment conditions and meet the needs of sub-

divided industry. The cooperative class lends itself so readily to effective vocational guidance and is so adaptable to conditions in small towns that this type of education may be expected to grow rapidly. Further development of cooperative classes is needed in the upper grades of the elementary school or in the junior high school, especially as the tendency to raise the compulsory school age retains in the schools an increasing number of pupils who are not well adapted to conventional academic courses.

Private, commercial, trade and correspondence schools may be criticized because many of them give the young worker too little return for the money and effort expended. Their continued success, however, indicates that they are trying to meet needs which the public schools are not yet meeting adequately, and the success of the good schools of this type presents a challenge to the public schools to go further in meeting the desires of young workers.

One of the outstanding facts encountered in a survey of educational opportunities for young workers is the uneven distribution of these opportunities. This is largely due to the fact that they have developed under the control of forty-eight different states. This situation has some value in that the most progressive states are far ahead of standards which would be fairly applicable to the entire nation. This brings about a situation whereby we have the advantage of considerable well-tried experience as a guide for expansion. Sometimes, however, it results in taking over a plan which produces a paper program that is frequently far ahead of the actual practice. Nevertheless, one important consequence of this situation is that the programs of the less progressive states can be expanded on the basis of proved practice rather than of experimentation. A considerable body of educators are in favor of attaining greater uniformity and hastening the

advance of less progressive states by the enactment of federal education laws. Such procedure is opposed by others, partly on the ground of fundamental opposition to restriction of states' rights, partly because of irritation against so-called bureaucracy, and partly because of a widespread feeling that school control ought to be very largely in the hands of local districts. At present there is a well-established system of special aid from federal funds. This is strongly opposed in those states which pay the bulk of the federal taxes. The argument in favor of such aid is the same as that for any federal education or child labor act, namely, that it tends to bring the backward states ahead. The point at issue is whether on the whole the social gain in efficiency outweighs the social loss introduced by an element of compulsion and the consequent deadening effect on local initiative.

A study of the numerical distribution of our young people shows that one in five of the 14 and 15 year olds has left school, three in five of the 16 and 17 year olds, and four in five of the 18 to 20 year olds have dropped out. The country makes a better record than the city in retaining those of the 14-20 year group in school. The probable reason for this is that opportunities for full-time employment are more numerous in the city than in the country. Illiteracy is a serious problem because one in fifty is illiterate in the 10-15 year age group and one in thirty-three in the 16-20 year group; on the other hand, a great deal of improvement was made between 1910 and 1920, the illiteracy in the first group being reduced from 4.1% to 2.3% and in the second group from 5.5% to 3.3%. During the same period efforts to restrict the employment of minors reduced the number of young workers in the 14 year group to one-half, in the 15 year group to two-thirds, and in the 16 and 17 year group to three-fourths of the 1910 percentages. Any figures of this sort, however, are subject to wide varia-

tions in different communities, so that a local survey is needed to determine actual conditions in any community. Opportunities for further education, apart from correspondence schools, are very largely restricted to cities. Nevertheless, a surprisingly large proportion, even on a nation-wide basis, get further education in philanthropic schools, commercial institutions, plant schools, university extension courses and public part-time and evening schools. About 18% of the 14-20 year group and about 8% of the 21-24 year group are engaged in some type of post-school education. The small town and the rural community, however, have great need for more opportunities. We have five million young workers in the 14-20 year group and six million in the 20-24 year group. Of this total number about one in ten have the desire and the opportunity for further education.

The great bulk of our young workers, at least two-thirds, have had no day-school training beyond the ninth grade. In consequence, much of the further education offered to them in general or academic studies must be of an elementary nature. There is, however, a distinct group, ranging, roughly, from 15 to 30 per cent, capable of taking instruction of high school grade. Economic necessity as a reason for leaving school affects from 10% to 60% of different groups. On the whole, however, while important, it is not the chief reason for leaving school. Most of them drop out because of a combination of dislike for school and desire to go to work. Those who wish to obtain further education usually make the effort while they are young, that is, under 24 years of age. One of the outstanding facts is that in America we tend to satisfy the desire for education in youth. Here and there selected groups of older people enroll for courses, but on the whole the movement in this country is a youth movement.

Most of these young people desire further education

because of a mixture of motives, but the vocational and utilitarian motives predominate. This is but natural, since their interest centers largely on the problem of establishing themselves in the means of earning a living under the most desirable employment and social conditions. It is therefore encouraging to find evidence of a motive for general or cultural improvement in from one-fifth to one-fourth of the total enrollment in evening schools in typical cities and in about one-half of those who enroll in the academic evening high schools.

They pursue their education handicapped by difficulties arising from fatigue, weather, demands of employment and lack of previous preparation. Many of those who start become discouraged and drop out, either because they undertake studies upon which they are not yet prepared to enter, or because they are unwilling to buy their further education at the price of the effort demanded. This drop-out ranges from 25 to 30 per cent in the first ten weeks of evening high school work up to probably 95% of those who undertake private correspondence school work.

In a program of preparing suitable educational opportunities the problem of the small town does not differ greatly from that of the larger city, but the rural district needs to develop through experiment and trial types of post-school opportunity suited to the needs of the farm regions.

There is considerable evidence that the type of employment open to young people and the chance for promotion are determined to an important degree by the general intelligence of the individual rather than by the actual school grade completed. This indicates the need of more extensive use of intelligence tests for guidance purposes, always, however, with great caution, because these tests are yet in the experimental stage.

These young workers need guidance in the use of read-

ing and other leisure-time activities. Such guidance, however, will accomplish little unless attractive offerings are available. The public library can be made a much more effective means for meeting needs in this field. The librarians are alert to this situation and we may expect increasing cooperation between the library and other educational agencies.

The basic handicaps of juvenile employment have changed but little. Monotony and the lack of training or of promotional possibility are inherent in their jobs. Large numbers drift from one job to another. Part of this drifting is excessive and is due to the restlessness of youth. Much of it is inevitable because the chance for promotion in a given plant is limited. Frequently these young people advance themselves by shifting to another line of work as they mature to meet the requirements of that work. Up to the age of 18 most of them can find employment only in unskilled and semi-skilled jobs. Beyond that age only the most able may hope to advance beyond semi-skilled work. The quick rise to maximum wage and promotion is followed by a settling-down process, frequently accompanied by bitterness. While the years of youth are passing the more ambitious ones strive to make the most of opportunities for vocational education. The entire group slowly gains advantages in the form of increasing leisure time and opportunity for recreation accompanied by a general rise in the standard of living. Since at present types of employment are determined by economic and social status as well as by general intelligence, it would seem that there must be many individuals who would respond to educational opportunities designed to provide more resources for the worthy use of leisure.

School preparation and post-school opportunities for young workers in villages deal with situations more like those of the city than those of the country. Very few villages offer further education in the form of evening or

continuation school. However, they retain their pupils in day schools up to at least 18 years, and in some cases up to 21 years, in very much larger proportion than do the cities. There are correspondingly smaller proportions at work. Probably the most important conclusion from this fact is that villages will not be greatly affected either in school conditions or in employment conditions, by legislation raising the school age to 16 years. Further justification for such action lies in the fact that the villages are practically untouched by continuation schools and offer very few opportunities in evening schools.

Recent surveys of farm communities reveal the presence of large numbers of young farm workers. No serious obstacle to the installing of further educational opportunities exists in the matter of transportation or of housing. There are wide variations, however, even between adjoining townships, so that problems are distinctly local. There is need for a specific plan in any locality before interest can be worked up. The rural schools hold their children in larger proportion than do the city schools. Illiteracy among young workers is more widespread than in the cities, the percentages sometimes amounting to four times those in nearby urban districts. Immigration does not affect the group under 19 years of age to any important extent. In many communities a very serious state of affairs exists due to the employment of very young children in seasonal activities. Slight beginnings have been made to meet the educational needs of boys through the establishment of rural continuation schools; the girls, however, are being neglected. It is highly advisable to provide an opportunity for more organized social life in connection with educational opportunities which may be offered.

The offerings which have been presented to men and boys are usually strictly vocational. Even in the most prosperous sections there is lack of good facilities for

recreational and avocational interests. That community is favored in which 40% have access to libraries, and in many communities the number ranges below 5%. In the backward rural regions, and they are found in every state, there is such urgent need among young workers for the relief of poverty and definite instruction on homemaking and intelligent farming that provision for general education beyond the elementary grades is thrust into the background. There is no lack of experience as to what is needed. The chief needs are for consolidated schools and instruction in vocational agriculture and home economics. Although these institutions are well established in progressive communities, at present vocational instruction reaches only about 7% of the children in school and one-fourth of 1% of those out of school. Both the young people and the older ones need facilities for finding pleasure outside their work. The general need for elementary and high school improvement is so great that it is likely to cause postponement of opportunities for the young workers for many years to come.

The special types of education which have been developed in this country for young workers have certain points in common. In general they did not adopt much of European experience beyond a general idea that certain types of work were needed; that is, we have developed distinctly American methods in the education of young workers. Our American practice, developing through many years, tends to provide the means of satisfying a desire for education to most of those under middle age who really wish further education. Our higher compulsory school age and extensive free public day and evening high schools give our people an opportunity which they tend to seize in youth, or at any rate, before the twenty-fifth year. Because the movement is a youth movement and because the expressed desire is chiefly for education in vocational and utilitarian sub-

jects, these opportunities for further education usually stress vocation, social-civic relations, health and culture, in the order named. The vocational types have worked out elaborate methods for analyzing jobs, presenting instruction by a plan of unit lessons, and providing thorough special training for teachers. General education, which is usually presented in evening schools of the academic type, is much more likely to be presented by traditional methods, and consequently to fail to meet the interests and specific needs of the young workers.

Real apprentice training has gone through a remarkable revival, especially in the past five years. The preparation of apprentices receiving worth-while training is increasing rapidly. We have retained in corporation schools training for the traditional, highly-skilled trades. In addition, in the modern plan of cooperative apprentice-training we have developed a new apprenticeship well suited to modern industry. The rapid growth of this work is one of the outstanding features in present-day education.

Evening schools are distinctly a city activity. In numbers of pupils enrolled they have increased 500% in 40 years. Even yet, however, in the communities where they are established, they are reaching only a fraction of those who could be reached. The experience of cities like Buffalo, Cincinnati, Detroit, Los Angeles, and Portland (Ore.), indicates that it is possible to reach three, four or five times as many persons as are enrolled in the average community. Evening schools in general are handicapped by tired teachers, overcrowded classes, an excessive loss of pupils, lack of guidance and lack of special teacher-training. Nevertheless, they are reaching one in ten of our five million young workers. The evening schools display a fine spirit, variety of opportunity, and a readiness to make the opportunities more varied. Within the past three years a very important tendency

has developed to expand evening school work, retaining all existing vocational opportunities, but providing in each sizable city one or more general evening high schools, which are maintained on a standard of equality with the day high school. This new type of school extends the term to the full school year or provides a five or six-year course, so that its diploma points are evaluated as equal to those of the day high school.

Another important development in the evening school field during the past five years is the growth of the rural evening schools. They already enroll 15,000 men and boys and are growing rapidly. Although confined at present to instruction in vocational subjects, they are paving the way for the establishment of schools which will also enroll women and girls and will provide courses in general and cultural studies.

The continuation schools have made a marvelous record for the speed of their establishment and the growth of their enrollment. They are now found in thirty-four states and enroll more than a quarter of a million pupils each year. The continuation schools have been handicapped because of the speed with which they grow, but they are rapidly developing efficiency in their special field. Experience with these schools has added evidence of the large amount of waste involved in employing children under 16 years of age. Where such children are employed the continuation school is the most effective remedy yet developed for reducing this waste. There is, therefore, urgent need for extending this type of school to those states which have not yet installed it. In the states where the continuation school has been in existence for several years there is evidence of the probable diminishment, perhaps eventual elimination, of the 14-16 year age group, by raising the compulsory school age and retaining children in day schools which have been realjusted to do effective work with this group of children.

It therefore seems probable that the American part-time school for young workers will find its real field with the 16-18 year group. Real vocational training will be provided for some of the pupils and for others there will be approvable supervised training in industry. For all the pupils the school will furnish instruction supplementary to vocational experience with stress on related subject-matter, citizenship training, and general culture.

Guidance is permeating all phases of school work both for those in the day schools and for those who have left school to go to work. It is based on scientific method and proceeds very cautiously. It is causing a growing co-operation between the home, the school, and employment. Lines of successful procedure are already well established in many school systems and the movement is growing rapidly. As guidance ideas are further incorporated in day-school work there will be increasing justification for prolonging the preliminary period of training for prospective young workers. Meantime, in spite of the progress that has been made, there is very great need for an expansion of guidance service to young people who have already left school.

We need further information on a number of points. We have no convincing evidence of the effect of employment on the health of given age groups, soon after their entrance on employment, and especially after a lapse of two or three years. There is a dearth of information regarding the relation between given types of subject-matter and the age of the group to which they are most likely to appeal. The writer attempted to follow a hypothesis that as people become established in vocation they are likely to develop an increasing interest in general and cultural studies. Because figures are generally lacking on the age of pupils when they are distributed by subjects studied, no convincing evidence has been discovered.

There is a general lack of information about evening school pupils. Special studies are needed to indicate what types of pupils respond to certain studies. Such information would be of great value in planning a campaign for increasing the use of these schools.

The prospect of getting special financial aid from state or federal funds for certain classes usually stimulates special efforts to recruit for these classes. At present there is virtually no special aid for elementary and general academic studies in evening high schools. It would be an interesting experiment to provide special aid for some of these classes and to see whether enrollment in them would grow.

With regard to the drop-out of evening-school pupils we need more evidence as to the amount of the drop-out and the reasons for it. In addition, some experimenting is needed to develop special methods of guidance for evening-school pupils and to determine the effect of guidance in checking drop-out.

We need accurate evidence, probably on a psychological basis, for the reasons which affect choice of studies in all types of post-school opportunities.

In the field of expanding opportunities in rural districts we need study showing whether the farmer can afford to pay for increased educational offerings.

It is highly desirable that evening-school systems which can afford to make some experiments should at once increase their offerings and work out methods of recruiting pupils in order to determine whether there is a dormant or potential demand for general or cultural subjects among groups of people who at present are not responding to the evening-school offerings.

This review of educational opportunities for young workers shows that there has been a consistent development of agencies and of methods. There is an abundance of well-tried experience which indicates a probably suc-

cessful means for remedying any important deficiency, but our theory is far ahead of our practice. In every community educators may be found who know what remedy is needed for local ills, yet these remedies are not available for vast numbers of young workers. Of the five million young workers not more than half of one million are in evening schools, a quarter of a million are in continuation schools, and those who have access to cooperative classes, apprentice training and central guidance agencies may be numbered by thousands. The proportion diminishes steadily as observation passes from the larger cities to the small towns, the villages and the rural districts. We need literally a campaign of education that our people may be induced to profit by the experience of the more progressive communities and give a chance to all the children of all the people.

APPENDIX

In order to avoid encumbering the text with the longer statistical tables they are presented in this appendix. In each instance the chapter in which a given table is referred to is indicated. Some additional tables containing statistical information related to juvenile employment are also presented.

TABLE I—(REFERRED TO IN CHAPTER VIII)

CONTINUATION SCHOOL REQUIREMENTS

(Compiled from U. S. Department of Labor—Children's Bureau—Chart Series No. 2 and Revision of November 1, 1922.)

State	Law in Effect	Minimum Number of Minors Required to Establish Classes	Age of Required Attendance	Hours of Required Attendance a Week	Length of School Year
Arizona	1919	15	14-16	5	150 hours
California ...	1920	12 ¹	14-18	4	Same as public schools
Connecticut ..	1921	.. ⁵	14-16	4	Same as public schools
Delaware	1921	15	12-16	4	36 weeks
Florida	1921	15 ²	14-16	..	144 hours
Illinois	1921	20	14-18	8	Same as public schools
Indiana	1921	.. ⁵	14-18	4	Same as public schools
Iowa	1919	15	14-16	8	Same as public schools
Massachusetts.	1920	200 ³	14-16	4	Same as public schools
Michigan	1920	50 ⁴	14-17	8	Same as public schools
Missouri	1919	25	14-16	4	Same as public schools
Montana	1919	15	14-18	4	Same as public schools
Nebraska	1919	15	14-16	8	144 hours
Nevada	1919	15	14-18	4	Same as public schools
New Jersey ..	1920	20	14-16	6	36 weeks
New Mexico...	1919	15	14-16	5	150 hours
New York	1920	200 ⁴	14-18	4-8	Same as public schools
Ohio	1921	.. ⁵	16-18	4	144 hours
Oklahoma ...	1919	20	16-18	..	144 hours
Oregon	1919	15 ²	14-18	5	Same as public schools
Pennsylvania .	1915	20	14-16	8	Same as public schools
Utah	1919	15	14-18	4	144 hours
Washington ..	1920	15 ⁶	14-18	4	Same as public schools
West Virginia.	1921	50	14-16	4-8	144 hours
Wisconsin ...	1911	.. ⁴	14-18	.. ⁷	8 months

¹ High school districts having 50 or more pupils must establish part-time classes.² Attendance upon evening school may be substituted.³ Referendum law adopted by all towns affected except one.⁴ Establishment required only in cities of over 5000 population.⁵ Permissive, mandatory.⁶ Districts may organize schools upon written request of 25 residents.⁷ 14 and 15 year old children half-time; 16 and 17 year old children 8 hours a week.

TABLE II—(Referred to in Chapter IX)
THE DISTRIBUTION OF YOUNG WORKERS BY AGES AND OCCUPATIONS IN THE UNITED STATES
(Compiled from U. S. Census, 1920, Vol. IV, Table 6)

	10-13 Years		14 Years		15 Years		16 Years	
	Male	Female	Male	Female	Male	Female	Male	Female
All occupations	258,259	119,804	174,683	82,911	281,306	143,895	448,134	277,823
Agriculture, forestry, animal husbandry	221,409	107,549	109,360	41,617	128,469	38,905	133,368	43,923
Extraction of minerals	598	49	1,465	34	4,982	63	19,639	133
Manufacturing and mechanical	6,737	2,736	27,039	23,473	70,559	54,793	162,781	107,822
Transportation	1,682	217	3,907	3,455	10,928	2,623	23,844	10,876
Trade	16,369	844	11,835	3,009	21,030	10,281	36,044	24,712
Public service	136	17	199	9	1,750	19	2,428	37
Professional service	325	296	504	298	1,150	892	2,294	2,820
Domestic and personal service	4,880	7,292	4,299	10,182	6,903	20,450	11,218	39,780
Clerical occupations	6,123	804	16,075	3,834	37,435	15,869	56,518	47,720

	17 Years		18-19 Years		20-24 Years	
	Male	Female	Male	Female	Male	Female
All occupations	604,122	331,369	1,443,968	802,265	4,121,392	1,809,075
Agriculture, forestry, animal husbandry	214,344	37,504	457,588	71,497	1,134,649	130,790
Extraction of minerals	23,207	171	54,024	299	143,920	510
Manufacturing and mechanical	203,434	113,476	475,401	214,340	1,395,784	382,705
Transportation	37,145	16,520	120,285	39,996	404,352	70,702
Trade	46,376	30,330	104,222	67,744	372,471	138,915
Public service	8,465	57	50,993	547	114,931	2,929
Professional service	3,480	8,629	17,792	69,450	106,632	298,827
Domestic and personal service	13,170	48,368	32,940	118,729	112,716	302,226
Clerical occupations	59,729	76,314	130,723	219,663	335,937	481,411

TABLE III—(REFERRED TO IN CHAPTER X)
 COMPARISON OF YOUNG WORKERS AND DAY SCHOOL PUPILS AS REGARDS
 READING HABIT AND MOTION PICTURE ATTENDANCE
 Percentage Tabulation Compiled from Study of Fred. S. Haines

	READING							
	14 Year Age Group				15 Year Age Group			
	50 Boys Young Workers	50 Boys Day School	50 Girls Young Workers	50 Girls Day School	83 Boys Young Workers	50 Boys Day School	83 Girls Young Workers	50 Girls Day School
Like to read	66%	76%	60%	64%	..%	60%	84%	88%
Like poetry	28	40	76	78	41	58	36	40
Do not like poetry	72	40	24	42	60	84	78	80
Have library cards	80	72	88	92	72	92	64	72
Are reading books	72	60	94	76	60	84	10	20
Are reading them for school...	30	16	44	24	50	16	54	52
Are reading for enjoyment	42	44	50	52				
Favorite type of book:								
Mystery stories	36	44	16	8	10	10	24	14
Adventure stories	26	24	20	18	27	20	23	26
Love stories	16	16	36	36	60	40	48	46
Western stories	12	16	6	12				
Animal stories	8	16	8	6			6	8
Detective stories								

Favorite magazine is:							
True Story	18	8	40		17	4	54
Western Story	14	4			7	8	
Popular Mechanics	12	20					
Radio	8	12	12				6
College Humor	8		10	10	11		
Liberty	6			18	18	8	
Scattered	36	34			7	20	
American Boy		18			8	12	
Boy Life		4					16
Youth's Companion			22				
True Romance			6				
Smart Set					9	8	
Popular Magazine							10
Ladies Home Journal							12
Literary Digest				28			
Saturday Evening Post				10	6	6	
Picture Play					2	4	8
I Confess							
Physical Culture							7

TABLE III (Continued)
MOTION PICTURE ATTENDANCE

	14 Year Age Group				15 Year Age Group			
	50 Boys Young Workers	50 Boys Day School	50 Young Workers	50 Girls Day School	83 Boys Young Workers	50 Boys Day School	83 Girls Young Workers	50 Girls Day School
Accustomed to go to movies..	100%	92%	96%	96%	84%	100%	100%	96%
One time per month		2	4	4	4	4	4	
Two time per month		16	4	8	1	0	2	
One time per week	24	26	10	22	36	30	40	44
Two times per week	26	16	16	24	32	38	22	20
Three times per week	20	14	26	14	14	12	24	18
Four times per week	14		22	6	12	10	10	10
No set number of times	16		14	18	4	6	10	8
Favorite Actor:								
Richard Talmadge	30	20					11	20
Thomas Meighan	14	16	14	18		26		
Tom Mix	22				35			
Our Gang		14						
Richard Dix			20					
Douglas Fairbanks		8		16	14	12	11	34
Ramon Navarro	16		20					
Rudolph Valentino			8				45	16
Distributed			20			18		
Dustin Farnum					22			
Bill Harte					16			
Harold Lloyd					12	8	7	18

Lewis Stone						11	
Ben Lyon				10		11	
Adolph Menjou				14			
Jackie Coogan							
Favorite Actress:							
Scattered	16	30	14		15		10
Marion Davies	10	22	22		12	11	20
Gloria Swanson	36	18	24	14	30	20	20
Mary Pickford	6	14	20				
Viola Dana		6		10		30	
Pola Negri	32		22		20		
Norma Shearer			12		12		
Edna Murphy			4		12		
Constance Talmadge				10		20	20
Norma Talmadge							10
Dorothy Gish						20	
Pearl White						14	
Ruth Roland							

TABLE IV—(REFERRED TO IN CHAPTER XIV)

DISTRIBUTION OF YOUNG WORKERS OF FARM POPULATION IN EIGHT TYPICAL AMERICAN COUNTIES

Compiled by selection from sundry tables in U. S. Department of Commerce Bulletin, 1924.—Farm Population of Selected Counties. The data in this bulletin are the result of special tabulation for eight selected representative counties.

	Otsego County N. Y.	Dane County Wis.	New Madrid County Mo.	Scott County Mo.	Cass County N. Dak.	Wake County N. C.	Ellis County Tex.	King County Wash.
AGE DISTRIBUTION (Tables 10)								
15-19 Year Group								
Boys	877	1773	1005	602	736	2114	2080	935
Girls	931	1374	824	523	722	2113	2003	732
Total	1608	3147	1829	1125	1458	4227	4083	1667
Per Cent of Total Population...	7.8	9.8	11.3	10.9	10.3	10.8	11.6	8.1
20-24 Year Group								
Boys	713	1562	695	441	835	1478	1628	793
Girls	610	1211	611	407	633	1638	1613	597
Total	1323	2773	1306	848	1468	3116	3241	1390
Per Cent of Total Population...	6.4	8.6	8.1	8.2	10.4	8.0	9.2	6.7
ATTENDING SCHOOL (Tables 14)								
Over 19 Years	64	89	19	19	94	168	87	88
15-19 Year Group								
Boys	334	481	244	189	297	1205	838	386
Percentage	38.0	27.0	24.3	31.4	40.4	57.0	40.3	41.3
Girls	401	541	247	185	366	1214	871	409
Percentage	55.0	39.4	30.0	35.4	50.7	57.5	43.5	55.9
Total	735	1022	491	374	663	2419	1709	795
Percentage	45.7	32.5	26.8	33.2	45.5	57.2	41.9	47.7
NOT IN SCHOOL (Tables 10 minus Tables 14)								
15-19 Year Group								
Boys	543	1292	761	413	439	909	1242	549
Percentage	62.0	73.0	75.7	68.6	59.6	43.0	59.7	58.7
Girls	330	833	577	338	356	899	1132	323
Percentage	45.0	60.6	70.0	64.9	49.3	42.5	56.5	44.1
Total	873	2125	1338	751	795	1808	2374	872
Percentage	54.3	67.5	73.2	66.8	54.4	42.8	58.1	52.3

GAINFULLY EMPLOYED (Tables 28)									
10-17 Year Group									
Boys	228	572	547	227	149	1901	1583	217	
Girls	37	74	211	77	42	1017	935	45	
Total	265	646	758	304	191	2918	2538	262	
15 yrs.—Boys	32	107	85	31	24	268	206	27	
Girls	2	14	34	11	5	161	139	4	
Total	34	121	119	42	29	429	345	31	
16 yrs.—Boys	64	181	125	54	45	294	244	85	
Girls	10	29	29	20	12	151	140	13	
Total	74	209	154	74	57	445	384	98	
17 yrs.—Boys	116	211	156	94	69	291	267	91	
Girls	23	23	39	22	23	126	137	25	
Total	139	234	195	116	92	417	404	116	
(Tables 20)									
15-19 Years									
Boys	483	957	688	358	340	1455	1267	481	
Percentage	55.1	54.0	68.5	59.5	46.2	68.8	60.9	51.4	
Girls	87	193	152	79	116	708	685	118	
Percentage	11.9	14.0	18.4	15.1	16.1	33.5	34.2	16.1	
Total	570	1150	840	437	456	2163	1952	599	
Percentage	35.4	36.5	45.9	38.8	31.3	51.2	47.8	33.9	
PERCENTAGE DISTRIBUTION OF 15-19 YEAR OLD, NOT IN SCHOOL BY PARENTAL STATUS									
(Tables 14)									
Farm Owners									
Total	48.6	64.3	58.4	65.6	49.0	32.8	41.2	47.2	
Boys	55.8	69.4	65.4	66.7	54.3	35.0	43.6	55.3	
Girls	40.5	58.3	48.7	64.4	43.9	30.4	38.5	37.6	
Farm Tenants									
Total	62.5	74.7	70.6	60.3	60.7	49.3	59.9	51.5	
Boys	71.4	77.3	72.6	63.1	63.1	48.6	61.7	50.3	
Girls	52.4	71.7	68.1	57.0	58.2	49.9	58.3	52.9	
Farm Laborers									
Total	73.0	81.3	82.4	80.2	74.6	55.1	76.8	72.3	
Boys	78.8	86.9	84.2	80.6	78.3	51.2	77.0	78.4	
Girls	63.3	65.1	80.6	79.8	64.1	59.8	76.6	60.4	
(Tables 15)									
Total	54.3	67.5	73.2	66.8	54.5	42.8	58.1	52.3	
White	54.3	67.5	71.6	66.5	54.5	38.3	53.1	51.8	
Native	53.9	66.9	71.7	66.5	53.6	38.3	52.0	49.8	
Foreign-born .....	...	...	...	...	...	...	...	70.1	
Colored .....	...	...	84.2	...	...	47.9	72.2	59.8	

TABLE V—(REFERRED TO IN CHAPTER XIII)

SELECTED FIGURES ON CONDITIONS IN AMERICAN VILLAGES

(From American Village Studies—Institute of Social and Religious Research—pp. 9, 41, 73, 129)

This study of the 1920 census covered 34 middle Atlantic villages, 44 southern, 65 middle-western, and 34 far-western. In each instance the percentage for villages is followed by the corresponding per cent for 10 (or 8) cities of 25,000 to 100,000 population, in the same region.

	Middle Atlantic		Southern		Mid-Western		Far-Western	
	Per Cent Male	Per Cent Female	Per Cent Male	Per Cent Female	Per Cent Male	Per Cent Female	Per Cent Male	Per Cent Female
School Attendance								
Age Group								
7 to 21.....	75.5	69.6	74.8	66.3	71.6	67.6	72.5	66.2
7 to 14.....	96.0	95.4	96.0	95.0	87.7	93.3	89.5	93.8
14 and 15.....	90.0	84.8	91.9	82.0	82.6	79.1	86.0	81.9
16 and 17.....	50.4	37.3	61.9	35.2	58.9	40.0	65.6	47.7
18 to 21.....	26.5	18.0	24.1	12.3	24.1	15.9	25.9	14.9
Gainful Employment								
Age Group								
10 years and over..	75.0	81.1	19.8	28.9	74.3	79.8	21.8	30.5
10 to 15.....	1.7	4.0	4.4	2.2	6.1	5.7	2.1	2.1
15 to 20.....	47.4	65.6	29.8	54.3	45.6	63.7	20.0	36.3
20 to 45.....	94.9	96.0	28.7	35.8	94.1	95.1	29.3	36.9
Occupation								
Agriculture	8.9	1.0	7	1	17.0	2.3	6.1	4
Extraction of minerals	2	1	6	4	30.6	39.4	12.5	17.1
Manufacture	47.3	56.2	36.1	46.5	11.3	15.7	2.2	2.1
Transportation	11.7	12.1	3.7	1.6	22.4	19.1	7.7	7.0
Trade	17.1	13.3	6.6	8.1	2.5	2.6	1.5	1.1
Public service	1.4	2.2	2	2	6.3	5.2	15.0	10.1
Professional service	5.8	4.0	16.3	8.7	7.0	49.2	49.2	49.2
Personal service	3.7	4.2	24.9	18.9	5.3	7.0	6.8	13.4
Clerical	3.9	6.9	11.5	15.5	4.0	8.3	6.8	13.4

TABLE VI—(REFERRED TO IN CHAPTER XIV)

TABULATION COMPARING FARM POPULATION WITH URBAN POPULATION IN SAME REGION AND IN THE UNITED STATES
(Compiled from Op. Cit. and 1920 U. S. Census, Vol. III)

	Otsego County N. Y.	Dane County Wis.	New Madrid County Mo.	Scott County Mo.	Cass County N. Dak.	Wake County N. C.	Ellis County Tex.	King County Wash.
I. Percentage of Illiteracy (Tables I-XIII)								
10 Years and Over								
Native White								
Total	0.9	1.1	11.4	2.9	1.3	16.2	7.4	2.3
Male	1.0	0.3	9.6	2.8	0.1	11.7	2.2	0.2
Female	0.3	0.2	5.8	2.2	0.1	8.2	1.5	0.2
Foreign-born White								
Total	6.0	5.0	...	...	4.9	...	14.5	4.2
Male	5.9	4.2	...	...	3.2	...	14.1	3.9
Female	6.1	6.2	...	...	7.7	...	14.1	4.9
Percentage of Total Population..	4.5	13.8	...	0.8	18.5	...	3.0	24.9
Colored								
Total	...	...	41.7	28.6	...	24.3	20.6	9.1 ¹
Male	...	...	44.0	...	...	27.1	23.2	6.5
Female	...	...	38.9	...	...	21.4	17.6	12.9
Percentage of Total Population..	0.1	...	9.4	1.1	0.1	44.2	25.8	11.2
Illiteracy—Same Region								Japanese
All Classes—Urban	1.5	2.4	...	2.3	0.7	8.9	6.1	1.5

TABLE VI (Continued)

	All Classes	Native Percentage	Foreign or Mixed Parentage	Foreign Born Whites	Negro
II. Illiteracy—Percentages for United States					
10 Years and Over					
Rural—Total	7.7	3.8	1.4	13.3	28.5
Male	8.0	4.2	1.6	12.4	29.8
Female	7.4	3.5	1.3	14.4	27.2
Urban—Total	4.4	0.8	0.5	13.0	13.4
Male	4.2	0.8	0.5	11.4	12.6
Female	4.7	0.8	0.5	14.9	14.2
16-20 Years					
Rural—Total	5.2	2.3	1.3	13.5	19.0
Urban—Total	1.3	0.5	0.4	4.7	6.1

	Otsego County N. Y.	Dane County Wis.	New Madrid County Mo.	Scott County Mo.	Cass County N. Dak.	Wake County N. C.	Ellis County Tex.	King County Wash.
III. 15-19 Year Group								
Per Cent of Total Population								
For Each State								
Farm	7.8	9.8	11.3	10.9	10.3	10.8	11.6	8.1
Urban	7.9	8.6	8.3	8.3	8.9	10.1	9.4	7.5
IV. Attending School								
15-19 Year Group								
Farm	45.7	32.5	26.8	33.2	45.5	57.2	41.9	47.7
14-20 Year Group								
Farm	45.3	40.1	49.0	49.0	43.0	50.4	45.2	48.6
Rural	33.0	34.7	33.0	33.0	48.2	33.8	39.1	44.6
Urban (Table 12)								

For the United States	All Classes	Native Parentage	Foreign or Mixed Parentage	Foreign- Born Whites	Negro
V. Percentage Attending School					
14-20 Year Group	44.6	48.1	39.7	22.1	37.3
Rural	39.3	44.1	37.3	25.0	33.1
Urban					
7-13 Years	82.4	86.4	90.7	78.4	60.5
Rural	91.8	92.2	93.7	89.9	79.5
Urban					

TABLE VII—(REFERRED TO IN CHAPTER XVIII)
CHANGES IN NUMBERS OF APPRENTICES, 1910 AND 1920 FROM U. S. CENSUS, 1920, VOL. IV, P. 132 FF.
25 RANDOM CITIES OF 100,000 POPULATION OR MORE

City	Total No. Employed in Manufacturing and Mechanical Industries		Apprentices Building and Hand Trades		Other Apprentices		Total No. of Apprentices	
	Male	Female	Male	Female	Male	Female	Male	Female
Albany, N. Y.	13,924	3,505	175	..	184	15		
Baltimore	115,727	27,353	1,097	..	847	161		
Boston	103,418	26,056	699	1	768	110		
Chicago	111,574	77,427	3,242	3	3,423	631		
Cincinnati	66,516	14,716	634	2	591	62		
Detroit	243,099	18,010	1,345	..	864	61		
Indianapolis	55,465	8,435	493	..	372	32		
Los Angeles	72,560	11,615	428	..	412	37		
Milwaukee	88,861	17,510	678	..	711	60		
New York	748,183	204,729	5,056	3	5,898	662		
Manhattan Bor.	280,538	99,722	1,411	..	2,057	245		
Newark, N. J.	77,811	15,815	722	..	652	105		
Oakland, Cal.	35,450	3,290	266	..	209	12		
Omaha, Neb.	27,975	2,953	157	..	127	5		
Philadelphia, Pa.	314,476	74,220	2,510	1	2,073	223		
Pittsburgh, Pa.	92,063	8,160	632	1	743	43		
Portland, Ore.	39,002	4,343	175	..	212	15		
Providence, R. I.	43,157	14,895	344	..	496	172		
Richmond, Va.	22,940	7,952	207	..	194	3		
Rochester, N. Y.	56,507	15,903	400	..	409	229		
St. Louis, Mo.	122,429	29,044	1,007	..	1,090	91		
San Francisco	71,009	11,036	582	..	556	38		
Seattle, Wash.	52,440	4,312	256	..	247	8		
St. Paul, Minn.	31,964	4,882	170	1	124	47		
Syracuse, N. Y.	34,902	7,729	283	..	168	14		
Worcester, Mass.								
Total in 1920	3,241,485	713,611	22,869	12	23,427	3,081	46,296	3,093
Total in 1910 ¹	2,668,378	725,873	9,107	17	26,302	1,817	35,419	1,834

¹ These 1910 totals from *Training Industrial Workers*, by R. W. Kelly, p. 137, omitting Lowell, Massachusetts, and Minneapolis, Minnesota. This omission does not affect the comparison of the two tabulations. Both tabulations are exclusive of apprentices to milliners and dressmakers.

TABLE VIII (REFERRED TO IN CHAPTER XIX)

RELATION OF POPULATION TO PUBLIC NIGHT SCHOOLS

Compiled from Tables 1, 3, 19, 20, 21, 22 in Statistics of City School Systems, 1921-1922

U. S. Bureau of Education Bulletin, 1924, No. 34

	Group I 100,000 Population and Over	Group II 30,000 to 100,000 Population	Group III 10,000 to 30,000 Population	Groups I, II and III Combined	Group IV 2,500 to 10,000 Population	Groups I, II, III and IV Combined
Number of systems	68	186	516	770	2,122	2,892
Number reporting night schools	65	129	193	387	117	504
Percentage of systems reporting night schools	95.6	69.3	37.4	50.3	5.6	17.4
Enrollment, public night schools ..						
elementary schools ..	281,938	47,176	21,471	350,585	.....	.....
secondary schools ..	261,801	58,460	11,249	331,510	.....	.....
vocational schools ..	90,249	32,577	15,202	138,028	.....	.....
total boys	340,412	73,848	25,693	439,953	.....	.....
total girls	303,968	64,365	22,229	390,562	.....	.....
total boys and girls	644,380	138,213	47,922	830,515	12,848	842,863
total teachers	13,451	4,166	2,028	19,645	590	20,285
Average pupils per teacher	47.9	33.1	23.6	42.2	20.9	41.6
Distribution of expense of instruction						
Total, all day schools	\$278,304,731	\$84,506,584	\$72,105,929	\$424,977,144	\$81,512,641	\$506,489,785
pupil enrollment	4,599,579	1,691,489	1,655,016	7,946,084	2,334,903	10,280,987
pupil per capita cost	60.5	50.0	43.5	53.5	34.9	49.2
Total, all night schools	\$5,093,469	\$904,204	\$327,403	\$6,325,076	\$88,334	\$6,413,420
pupil per capita cost	7.90	6.54	6.84	7.62	7.18	7.61

TABLE IX
HOW MANY CHILD LABORERS IN YOUR STATE ARE BEING DENIED SCHOOL OPPORTUNITIES?

States	Population 10 to 15 Years of Age		Child Laborers 10 to 15 Years of Age	Per Cent of Children 10 to 15 Years in Child Labor	Rank in Per Cent of Children Not En- gaged in Labor	Number of Native-Born Illiterates 10 to 20 Years of Age	Per Cent of Native Born Population 10 to 20 Years of Age Illiterate	Rank in Per Cent of Native Born Population, 10 to 20 Years of Age Literate
	1	2						
United States.....	12,502,582		1,060,858	8.48	.....	531,077	.....	8
Alabama	349,537		84,397	24.14	47	49,418	8.4	45
Arizona	38,278		2,711	7.08	31	899	2.0	35
Arkansas	259,593		48,140	18.54	45	22,360	5.1	39
California	304,820		9,057	2.97	4	1,379	0.280	18
Colorado	104,790		4,558	4.34	21	1,204	0.7	29
Connecticut	143,267		11,559	8.06	35	615	0.276	17
Delaware	23,809		1,406	5.91	30	374	0.9	31
Dist. of Col.....	35,230		1,871	5.31	27	285	0.40	27
Florida	123,852		10,864	8.77	39	13,080	6.2	44
Georgia	427,235		88,934	20.81	46	67,512	9.3	46
Idaho	54,641		1,608	2.94	3	152	0.17	1
Illinois	699,310		36,933	5.28	26	3,328	0.286	18
Indiana	323,979		16,911	5.21	25	1,721	0.303	23
Iowa	270,217		9,121	3.37	15	977	0.20	3
Kansas	211,706		7,270	3.43	18	914	0.250	13
Kentucky	318,408		26,754	8.40	37	18,736	3.4	37
Louisiana	258,052		32,274	12.50	41	68,525	15.6	49
Maine	82,829		2,585	3.12	9	1,358	1.0	32
Maryland	164,546		12,300	7.47	32	5,377	1.8	34
Massachusetts	394,026		33,723	8.55	38	1,455	0.234	11

Michigan	384,213	13,154	3.42	17	1,591	0.255	14
Minnesota	277,528	8,271	2.98	5	1,251	0.26	15
Mississippi	275,782	70,354	25.51	49	47,310	10.2	48
Missouri	395,682	22,587	5.70	29	5,647	0.8	30
Montana	60,045	1,402	2.33	1	217	0.233	10
Nebraska	155,920	5,286	3.39	16	581	0.220	6
Nevada	6,715	169	2.51	2	33	0.334	25
New Hampshire	45,691	1,526	3.33	13	221	0.30	22
New Jersey	341,185	26,024	7.62	33	1,580	0.29	20
New Mexico	48,032	2,195	4.56	22	3,927	5.4	41
New York	1,059,635	49,846	4.70	23	3,856	0.232	9
North Carolina	373,484	62,162	16.64	44	36,612	5.9	42
North Dakota	87,883	2,316	3.20	10	332	0.24	12
Ohio	596,741	18,119	3.03	8	3,381	0.332	24
Oklahoma	289,533	22,981	7.93	34	7,202	1.5	33
Oregon	81,500	2,462	3.02	7	287	0.21	5
Pennsylvania	996,916	55,671	5.58	28	5,485	0.336	26
Rhode Island	63,739	8,569	13.44	43	302	0.299	21
South Carolina	260,204	63,520	24.41	48	41,149	9.4	47
South Dakota	78,427	2,555	3.25	11	299	0.229	8
Tennessee	323,548	39,837	12.31	40	29,442	5.3	40
Texas	642,586	80,872	12.58	42	38,199	3.6	38
Utah	60,675	2,361	3.89	20	210	0.21	4
Vermont	38,579	1,277	3.31	12	271	0.43	28
Virginia	311,915	25,493	8.17	36	32,678	6.1	43
Washington	138,645	4,650	3.35	14	414	0.18	2
West Virginia	191,299	7,431	3.88	19	7,457	2.3	36
Wisconsin	308,468	15,684	5.08	24	1,398	0.270	16
Wyoming	20,387	608	2.98	6	76	0.222	7

The figures of this table were taken from the 1920 census, as given in Table 13, Vol. I, No. 4, Research Bulletins of the National Education Association.

378 EDUCATIONAL OPPORTUNITIES FOR YOUNG WORKERS

TABLE X—(REFERRED TO IN CHAPTER XIX)

PERCENTAGE OF TOTAL POPULATION OF TYPICAL CITIES ENROLLED IN NIGHT SCHOOL. COMPILED FROM U. S. BUREAU OF EDUCATION BULLETIN, 1922, NO. 17, AND 1924, NO. 34—TABLE 12

City	Total Population, 1920, Cities 2500 and Over	Number Enrolled in Night Schools	Percent	Number Enrolled in Night Schools	Percent
		1919-20 Biennium		1921-22 Biennium	
United States	53,067,118	586,848	1.1	842,863	1.59
Atlanta, Ga.	200,616	2,725	1.3	4,625	2.3
Birmingham, Ala. ...	178,806	617	0.3	1,473	0.8
Boston, Mass.	748,060	9,911	1.3	15,309	2.0
Buffalo, N. Y.	506,775	15,674	3.0	34,126	6.7
Chicago, Ill.	2,701,705	36,094	1.3	50,590	1.8
Cincinnati, O.	410,247	11,475	2.8	16,174	3.9
Cleveland, O.	796,841	8,578	1.1	20,294	2.5
Columbus, O.	237,031	2,660	1.1	2,168	0.9
Denver, Col.	256,491	1,560	0.6	1,675	0.7
Des Moines, Ia.	126,468	1,061	0.9	1,013	0.8
Detroit, Mich.	993,678	20,220	2.0	31,110	3.1
Jamestown, N. Y. ...	38,917	615	1.6	924	2.4
Johnstown, Pa.	67,327	1,104	1.6	946	1.4
Los Angeles, Cal. ...	576,673	31,757	5.5	41,426	7.2
Milwaukee, Wis.	457,147	5,254	1.1	14,915	3.3
New Orleans, La.	387,219	4,481	1.2	7,306	1.9
Omaha, Neb.	191,601	2,203	1.1	3,315	1.7
Philadelphia, Pa. ...	1,823,779	15,888	0.9	25,624	1.4
Portland, Ore.	258,288	4,565	1.7	10,954	4.2
San Antonio, Tex. ...	161,379	979	0.6	265	0.2
Sandusky, O.	22,897	600	2.6	130	0.6
Terre Haute, Ind. ...	66,083	939	1.4	765	1.1
Washington, D. C. ..	437,571	14,261	3.3	12,505	2.9

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